

Subject 391-3-4
SOLID WASTE MANAGEMENT
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Rule 391-3-4-.01 Definitions

- (1) "Active Life" means the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities.
- (2) "Active Portion" means that part of a solid waste handling facility or landfill unit that has received or is receiving wastes and that has not been closed.
- (3) "Aquifer" means a geological formation, group of formations, or portion of a formation capable of yielding significant quantities of ground water to wells or springs.
- (4) "Affected County" means, in addition to the county in which a facility is or is proposed to be located, each county contiguous to the host county and each county and municipality within a county that has a written agreement with the facility to dispose of solid waste.
- (5) "Asbestos-Containing Waste" means any solid waste containing more than 1 percent, by weight, of naturally occurring hydrated mineral silicates separable into commercially used fibers, specifically the asbestiform varieties of serpentine, chrysotile, cummingtonite-grunerite, amosite, riebeckite, crocidolite, anthophyllite, tremolite, and actinolite, using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1.
- (6) "Baling" means a volume reduction technique whereby solid waste is compressed into bales.
- (7) "Biomedical Waste" means any solid waste which contains pathological waste, biological waste, cultures, and stocks of infectious agents and associated biologicals, contaminated animal carcasses (body parts, their bedding, and other waste from such animals), chemotherapy waste, discarded medical equipment and parts, not including expendable supplies and materials, which have not been decontaminated, as further defined in Rule 391-3-4-.15.
- (8) "Boiler" means a device as defined in Chapter 391-3-11, the Rules for Hazardous Waste Management.
- (9) "CCR Landfill" means an area of land or an excavation owned or operated by an electric utility or independent power producer that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this Chapter, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR. This definition includes both active and inactive landfills.
- (10) "CCR Surface Impoundment" means a natural topographic depression, man-made excavation, or diked area owned or operated by an electric utility or independent power producer, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR. This definition includes both active and inactive surface impoundments, new and lateral expansions of surface impoundments, dewatered surface impoundments, and NPDES-CCR surface impoundments.
- (11) "CCR Unit" means any CCR landfill, CCR surface impoundment, or the lateral expansion of such landfill or impoundment, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.
- (12) "Certificate" means a document issued by a college or university of the University System of Georgia or other organization approved by the Director, stating that the operator has met the requirements of the Board for the specified operator classification of the certification program.
- (13) "Closure" means a procedure approved by the Division which provides for the cessation of waste receipt at a solid waste disposal site and for the securing of the site in preparation for post-closure.

(14) "Coal Combustion Residuals (CCR)" means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

(15) "Collector" means the person or persons as defined herein who, under agreements, verbal or written, with or without compensation does the work of collecting and/or transporting solid wastes, from industries, offices, retail outlets, businesses, institutions, and/or similar locations, or from residential dwellings, provided however, that this definition shall not include an individual collecting and/or transporting waste from his own single family dwelling unit.

(16) "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

(17) "Composting" means the controlled biological decomposition of organic matter into a stable, odor free humus.

(18) "Construction/Demolition Waste" means waste building materials and rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings and other structures. Such waste include, but are not limited to asbestos containing waste, wood, bricks, metal, concrete, wall board, paper, cardboard, inert waste landfill material, and other nonputrescible wastes which have a low potential for groundwater contamination.

(19) "Contaminant which is likely to pose a danger to human health" means any constituent in Appendix I, II, III, or IV found at levels confirmed above a groundwater protection standard.

(20) "Detected" means statistically significant evidence of contamination has been determined to exist by using methods specified in Rule 391-3-4-.14.

(21) "Director" means the Director of Environmental Protection Division of the Department of Natural Resources.

(22) "Disposal Facility" means any facility or location where the final disposition of solid waste occurs and includes, but is not limited to, landfilling and solid waste thermal treatment technology facilities.

(23) "Division" means the Environmental Protection Division of the Department of Natural Resources.

(24) "Existing SWLF or landfill unit" means:

(a) any municipal solid waste landfill or landfill unit that is receiving solid waste as of October 9, 1993, and meets either of the following two conditions:

1. disposed of over 100 tons per day (TPD) of solid waste between October 9, 1991, and October 9, 1992, (or other dates consistent with Federal standards and as may be approved by the Director), or;
2. is on the National Priorities List (NPL), as found in appendix B to 40 CFR, Part 300.

(b) any municipal solid waste landfill or landfill unit that is receiving solid waste as of April 9, 1994, and meets the following two conditions:

1. disposed of 100 tons or less per day of solid waste between October 9, 1991, and October 9, 1992, and disposes of no more than an average of 100 TPD of solid waste each month between October 9, 1993, and April 9, 1994, (or other dates consistent with Federal standards and as may be approved by the Director), and;
2. is not on the National Priorities List (NPL), as found in appendix B to 40 CFR, part 300.

(c) Waste placement in existing units must be consistent with past operating practices or modified practices to ensure good management.

(25) "Generator" means any person in Georgia or in any other state who creates solid waste.

(26) "Garbage" means food waste including waste accumulations of animal or vegetable matter used or intended for use as food, or that attends the preparation, use, cooking, dealing in or storing of meat, fish, fowl, fruit or vegetables.

(27) "Groundwater" means water below the land surface in a zone of saturation.

(28) "Hazardous Waste" means any solid waste which has been defined as hazardous waste in regulations promulgated by the Board of Natural Resources, Chapter 391-3-11.

(29) "Household waste" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

(30) "Host Local Government" means the host county or other local governmental jurisdiction within whose boundaries a municipal solid waste disposal facility is located.

(31) "Industrial Furnace" means a device as defined in Chapter 391-3-11, the Rules for Hazardous Waste Management.

(32) "Industrial Waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under the Hazardous Waste Management Act and regulations promulgated by the Board of Natural Resources, Chapter 391-3-11. Such waste includes, but is not limited to, wastes resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; inorganic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil or gas waste.

(33) "Inert Waste Landfill" means a disposal facility accepting only wastes that will not or are not likely to cause production of leachate of environmental concern. Such wastes are limited to earth and earth-like products, concrete, cured asphalt, rock, bricks, yard trimmings, stumps, limbs, and leaves. This definition excludes industrial and demolition waste not specifically listed above.

(34) "Lateral expansion" means a horizontal expansion of the waste boundaries of an existing MSWLF unit or landfill unit.

(35) "Leachate" means a liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such wastes.

(36) "Landfill Unit" means an area of land of which or an excavation in which solid waste is placed for permanent disposal and which is not a land application unit, surface impoundment, injection well, or compost pile. Permanent disposal requires the placement of daily, intermediate, and/or final earth, synthetic, or a combination of earth and synthetic cover over the solid waste.

(37) "Leachate Collection System" means a system at a landfill for collection of the leachate which may percolate through the waste and into the soils surrounding the landfill.

(38) "Liner" means a continuous layer of natural or man-made materials beneath or on the sides of a disposal site or disposal site cell which restricts the downward or lateral escape of solid waste constituents, or leachate.

(39) "Liquid Waste" means any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for the Evaluation of Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).

(40) "Materials Recovery Facility" means a solid waste handling facility that provides for the extraction from solid waste of recoverable materials, materials suitable for use as a fuel or soil amendment, or any combination of such materials.

(41) "Monofill" means a method of solid waste disposal that involves the landfilling of one waste type or wastes having very similar characteristics in a segregated trench or area which is physically separated from dissimilar or incompatible waste.

(42) "Municipal Solid Waste" means any solid waste derived from households, including garbage, trash, and sanitary waste in septic tanks and means solid waste from single-family and multifamily residences, hotels and motels, bunkhouses, campgrounds, picnic grounds, and day use recreation areas. The term includes yard trimmings and commercial solid waste, but does not include solid waste from mining, agricultural, or silvicultural operations or industrial processes or operations.

(43) "Municipal Solid Waste Landfill (MSWLF) Unit" means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR Part 257.2. A MSWLF unit also may receive other types of solid waste, such as commercial solid waste, nonhazardous sludge, small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion.

(44) "Municipal Solid Waste Disposal Facility" means any facility or location where the final deposition of any amount of municipal solid waste occurs, whether or not mixed with or including commercial or industrial solid waste, and includes, but is not limited to, municipal solid waste landfills and solid waste thermal treatment technology facilities.

(45) "Municipal Solid Waste Disposal Facility Operator" means the operator certified in accordance with Rule 391-3-4-.18 and stationed on the site who is in responsible charge of and has direct supervision of the daily field operations of a municipal solid waste disposal facility to ensure that the facility operates in compliance with the permit.

(46) "Municipal Solid Waste Landfill" means a disposal facility where any amount of municipal solid waste, whether or not mixed with or including commercial waste, industrial waste, nonhazardous sludges, or small quantity generator hazardous wastes, is disposed of by means of placing an approved cover thereon.

(47) "New MSWLF Unit" means any municipal solid waste landfill unit that has not received waste prior to October 9, 1993.

(48) "Open Burning" means the combustion of solid waste without:

- (a) Control of combustion air to maintain adequate temperature for efficient combustion;
- (b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and
- (c) Control of the emission of the combustion products.

(49) "Open Dump" means a disposal facility at which solid waste from one or more sources is left to decompose, burn or to otherwise create a threat to human health or the environment.

(50) "Operating Records" means written records including, but not limited to, permit applications, monitoring reports, inspection reports, and other demonstrations of compliance with this Chapter, which records are kept on file at the facility or at an alternative location as approved by the Division.

(51) "Operator" means the person(s) responsible for the overall operation of a facility or part of a facility.

(52) "Owner" means the person(s) who owns a facility or part of a facility.

(53) "Person" means the State of Georgia or any other state or any agency or institution thereof, and any municipality, county, political subdivision, public or private corporation, solid waste authority, special district empowered to engage in solid waste management activities, individual, partnership, association or other entity in Georgia or any other state. This term also includes any officer or governing or managing body of any municipality, political subdivision, solid waste authority, special district empowered to engage in solid waste activities, or public or private corporation in Georgia or any other state. This term also includes employees, departments, and agencies of the federal government.

(54) "Post-closure" means a procedure approved by the Division to provide for long- term financial assurance, monitoring and maintenance of a solid waste disposal facility to protect human health and the environment.

(55) "Private Industry Solid Waste Disposal Facility" means a disposal facility which is operated exclusively by and for a private solid waste generator for the purpose of accepting solid waste generated exclusively by said private solid waste generator.

(56) "Processing Operation" means any method, system or other treatment designed to change the physical form or chemical content of solid waste and includes all aspects of its management (administration, personnel, land, equipment, buildings and other elements).

(57) "Putrescible Wastes" means wastes that are capable of being quickly decomposed by microorganisms. Examples of putrescible wastes include but are not necessarily limited to kitchen wastes, animal manure, offal, hatchery and poultry processing plant wastes, dead animals, garbage and wastes which are contaminated by such wastes.

(58) "Qualified Ground water Scientist" means a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable that individual to make sound professional judgements regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(59) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(60) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(61) "Recovered Materials" means those materials which have known use, reuse, or recycling potential; can be feasibly used, reused or recycled; and have been diverted or removed from the solid waste stream for sale, use, reuse, or recycling, whether or not requiring subsequent separation and processing.

(62) "Recovered Materials Processing Facility" means a facility engaged solely in the storage, processing, and resale or reuse of recovered materials. Such term shall not include a solid waste handling facility; provided, however, any solid waste generated by such facility shall be subject to all applicable laws and regulations relating to such solid waste.

(63) "Recycling" means any process by which materials which would otherwise become solid waste are collected, separated, or processed and reused or returned to use in the form of raw materials or products.

(64) "Regional Landfill or Regional Solid Waste Disposal Facility" means a facility owned by a county, municipality, or special district empowered to engage in solid waste management activities, or any combination thereof, which serves two or more any combination of counties, municipalities, or special solid waste districts.

(65) "Release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leaking, or placing of any substance into or on any land or water of the state.

(66) "Relevant Point of Compliance" is a vertical surface located at the hydraulically downgradient limit of the waste management unit boundary that extends down into the uppermost aquifer underlying the facility. This point will be specified by the Director and shall be no more than 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the landfill unit. The downgradient monitoring system must be installed at this point, and monitoring conducted to ensure that the concentration values listed in Table 1 of Rule 391-3-4-.07 will not be exceeded in the uppermost aquifer.

(67) "Saturated Zone" means that part of the earth's crust in which all voids are filled with water.

(68) "Scavenge" means the unpermitted removal of solids waste from a solid waste handling facility.

(69) "Shredding" means the process by which solid waste is cut or torn into small pieces for final disposal of further processing.

(70) "Significant Groundwater Recharge Areas" means any area as designated on Hydrologic Atlas 18 Most Significant Ground-Water Recharge Areas of Georgia, 1989, as published by the Georgia Geologic Survey, Environmental Protection Division, Georgia Department of Natural Resources, unless an applicant for a solid waste handling permit or other interested party can demonstrate to the satisfaction of the Director that an area designated on Hydrologic Atlas 18 is or is not, in fact, a significant groundwater recharge area.

(71) "Site" means the entire property a permitted solid waste handling facility is located within and includes all activities within that property.

(72) "Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

(73) "Solid Waste" means any garbage or refuse; sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, but does not include recovered materials; solid or dissolved materials in domestic sewage; solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permit under 33 U.S.C. Section 1342; or source, special nuclear, or by-product material as defined by the federal Atomic Energy Act of 1954, as amended (68 Stat. 923).

(74) "Solid Waste Handling" means the storage, collection, transportation, treatment, utilization, processing, or disposal of solid waste, or any combination of such activities.

(75) "Solid Waste Handling Facility" means any facility, the primary purpose of which is the storage, collection, transportation, treatment, utilization, processing, or disposal, or any combination thereof, of solid waste.

(76) "Solid Waste Handling Permit" means written authorization granted to a person by the Director to engage in solid waste handling.

(77) "Solid Waste Management Act" or the "Act", wherever referred to in these Rules, means the Georgia Comprehensive Solid Waste Management Act, O.C.G.A. 12-8-20, et seq.

(78) "Solid Waste Thermal Treatment Technology" means any solid waste handling facility, the purpose of which is to reduce the amount of solid waste to be disposed of through a process of combustion, with or without the process of waste to energy.

(79) "Tire" means a continuous solid or pneumatic rubber covering designed for encircling the wheel of a motor vehicle and which is neither attached to the motor vehicle nor a part of the motor vehicle as original equipment.

(80) "Transfer Station" means a facility used to transfer solid waste from one transportation vehicle to another for transportation to a disposal facility or processing operation.

(81) "Uppermost Aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the solid waste handling facility's property boundary.

(82) "Vertical Expansion" means the expansion of landfill beyond the approved maximum final elevations and within the approved waste management boundaries of the existing permit.

(83) "Waste Management Unit Boundary" means a vertical surface located at the hydraulically downgradient limit of the unit. This vertical surface extends down into the uppermost aquifer.

(84) "Waste-to Energy Facility" means a solid waste handling facility that provides for the extraction and utilization of energy from municipal solid waste through a process of combustion.

(85) "Yard Trimmings" means leaves, brush, grass, clippings, shrub and tree prunings, discarded Christmas trees, nursery and greenhouse vegetative residuals, and vegetative matter resulting from landscaping development and maintenance other than mining, agricultural, and silvacultural operations.

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Authority: O.C.G.A. § 12-8-20 et seq., as amended.

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Amended: Rule repealed and a new Rule of same title adopted. Filed September 19, 1974; effective October 9, 1974.

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Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.02 Solid Waste Handling Permits

(1) Permits Required: no person shall engage in solid waste handling or construct or operate a solid waste handling facility, except those individuals exempted from the provisions of the Georgia Comprehensive Solid Waste Management Act, under the provisions of O.C.G.A. 12-8-30.10 or O.C.G.A. 12-8-40 or those individuals who have a permit-by-Rule under Rule 391-3-4-.06, without first obtaining a permit from the Director authorizing such activity.

(2) Solid Waste Handling Permit: the Director may issue permits for solid waste handling provided the application is judged complete and meets the requirements of the Georgia Comprehensive Solid Waste Management Act and these Rules. Solid Waste Handling Permits shall be required for, but are not limited to, persons engaged in the collection, transportation, treatment, utilization, storage, processing, or disposal of solid wastes, or any combination thereof, except as exempted by O.C.G.A. 12-8-30.10 or O.C.G.A. 12-8-40 and these Rules and shall be required for the construction or operation of all solid waste handling facilities, except as exempted by O.C.G.A. 12-8-30.10 or O.C.G.A. 12-8-40 and these Rules.

(3) Modification or Revocation of Permits for Cause: the Director may modify or revoke any permit issued pursuant to O.C.G.A. 12-8-24 if the holder of the permit found to be in violation of any of the permit conditions; or if the holder of the permit fails to perform such activity in accordance with the approved plan; or if such activity creates a threat to human health or the environment. In the event of modification or revocation of a permit, the Director shall serve written notice of such action on the permit holder and shall set forth in such notice the reason for such action.

(4) Permit Modifications at the Request of the Permittee: all modifications of existing solid waste handling permits shall be classified as follows:

(a) Major Modifications include those changes which substantially alter the design of the facility, management practices, the types of wastes being handled, or the method of waste handling, and due to the nature of the changes, would likely have an impact on the ability of the facility to adequately protect human health and the environment. Major modifications therefore require closer review and public input than minor modifications. Major modifications shall include, but are not limited to, the following:

1. A modification which involves a vertical expansion of an existing landfill.
2. A modification which involves a lateral expansion of an existing landfill which is allowed by the most current, unexpired letter of site suitability.
3. A modification which involves a lateral expansion of a CCR surface impoundment.
4. A modification which adds a new solid waste handling process. This shall include but not be limited to the addition of an air curtain destructor, a materials recovery facility, a baling operation, a shredding operation, a municipal solid waste or sewage sludge composting operation, or a liquid solidification operation.
5. A modification which involves the change of a site suitability requirement which could have impacted the original siting of the facility.
6. Any other modification which the Director, in the exercise of his discretion, determines to meet the criteria set forth in Section (4) (a) of this Rule.

(b) Minor modifications include changes that do not substantially alter the permit conditions, that do not reduce the capacity of the facility to protect human health or the environment, or that enable a permittee to respond in a timely manner to common variations in the type and quantities of wastes managed, technological advancements, or changes necessary to comply with new Rules where these changes can be

implemented without substantially changing design specifications or management practices in the permit. Minor modifications shall include, but are not limited to, the following:

1. Changing the name of a facility.
2. A modification which involves a change in administrative and operational information and maintenance of operational records.
3. A modification which involves a change in the sequence of operation.
4. A modification which involves the relocation of access roads.
5. A modification which adds scales.
6. A modification which adds or deletes on-site structures.
7. A modification which involves the addition of or a change to a groundwater or surface water monitoring system.
8. A modification which involves the addition of or a change to a landfill gas monitoring system.
9. A modification which involves the addition or deletion of a permit-by-Rule facility.
10. A modification which involves the deletion of any solid waste handling facility.
11. A modification which involves the deletion of permitted capacity acreage.
12. A modification which involves the addition of or a change to an erosion and sedimentation control system.
13. A modification which involves the addition of or a change to a closure or post-closure plan.
14. A modification which involves the addition of or a change to a method of leachate handling and/or treatment.
15. A modification which involves the addition of or a change to a quality assurance plan.
16. A modification which involves the change of any compliance schedule which is part of the permit.
17. A modification which involves the addition of a corrective action plan.
18. A modification which involves a change in ownership, or in the case of a corporation of over five (5) percent of the stock in a corporation holding a permit, but does not involve the transfer of the permit.
19. A modification which involves the addition of acreage for the purpose of installing monitoring systems or installing structures for mitigating environmental impacts, where the original permitted acreage provides insufficient area to complete required improvements. This modification request must be accompanied by a site assessment report as required by paragraph (4) of Rule 391-3-4-.05.
20. A modification which involves the addition of or change in a soil or synthetic liner and leachate collection system to a waste unit holding a valid solid waste handling permit, if it does not require other significant site redesign.

21. A modification which involves the removal or recovery of CCR from a CCR unit for the purpose of beneficial use.

(c) All modifications of solid waste handling permits which are major modifications shall be subject to the following requirements:

1. Submission of a completed application for a permit modification.
2. Submission of supporting documents which accompany the application for a permit modification which describe the exact change to be made to the permit conditions and supporting documents referenced by the permit and which explain why the change is needed.
3. Submission of a revised design for the requested change.
4. Submission of written verification by the applicant, as required by subparagraph (1)(a) of Rule 391-3-4-.05, that the facility, as proposed to be modified, conforms to all local zoning/land use ordinances, if any.
5. Except for Private Industry Solid Waste Disposal Facilities, after July 1, 1992, submission of written verification by the applicant that the facility, as proposed to be modified, is consistent with the local or regional solid waste management plans and that the host jurisdiction and the jurisdictions generating solid waste destined to the facility can demonstrate that they are actively involved in and have a strategy for meeting the State-wide goal of waste reduction by July 1, 1996. The verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plan.
6. Except for Private Industry Solid Waste Disposal Facilities, submission of written verification that a public hearing was held by the governing authority of the county or municipality in which the solid waste facility requesting the modification is located, not less than two weeks prior to granting approval of the modification. Submission of written verification that notice of such hearing was posted at the site of such facility and advertised in a newspaper of general circulation serving the county or counties in which the facility is located at least thirty (30) days prior to such hearing. A typed transcript of the hearing must be provided to the Division.
7. Any application for a solid waste disposal facility vertical expansion shall meet the criteria as established in O.C.G.A. 12-8-24(e)(3). Any operation of a vertical expansion shall be in accordance with conditions set forth in the modified permit. Conditions to be included in any such modified permit shall, at a minimum, include the following:
 - (i) A minimum 100 foot buffer shall be provided between the property line and the waste disposal boundary established by the vertical expansion.
 - (ii) Site survey control shall be provided to ensure compliance with the approved permit modification.
 - (iii) Erosion and sedimentation control devices shall be installed, rehabilitated, and maintained as appropriate to control all surface runoff and sediments from disturbed areas.
 - (iv) All areas exposed for more than three (3) months shall be vegetated.
 - (v) Closure plans, post-closure plan, and appropriate financial responsibility shall be maintained and updated as provided for in the approved permit modification.

(vi) All other conditions of the existing permit not in conflict with conditions (i) through (v) above.

8. With the exception of major modifications granted under subparagraph (c)7. of this Rule, all major modifications shall meet the siting and design standards applicable to new permit applications in effect on the date the modification is approved.

(d) All modifications of solid waste handling permits which are minor modifications shall be subject to the following requirements:

1. Submission of a written request by the permit holder requests a minor modification.
2. Submission of supporting documents which accompany the written modification request which describe the exact change to be made to the permit conditions and supporting documents referenced by the permit and which explain why the change is needed.
3. If applicable, submission of a revised design for the requested change.
4. For a modification involving a change in ownership covered in subparagraph (4)(b)18. above, documentation must be provided to insure compliance with subparagraph (8)(a) be low.
5. Requests for minor modifications shall be deemed approved by the Division 45 days after receipt of a complete request for modification unless, prior to that date, the Division notifies the permit holder that the request for modification is denied or is incomplete, provided however, that the requests for the following minor modifications shall be approved only upon written notification from the Division: a surface or groundwater monitoring plan; leachate collection, handling or treatment system; liner systems; methane gas monitoring, collection, or treatment systems; closure or post-closure plans; or a change involving the addition of permitted acreage to allow for the installation and/or operation of environmental monitoring systems. Where a minor modification is deemed approved after 45 days without comment from the Division, the permit holder is not relieved of compliance with any applicable performance and/or design standard as provided for in these Rules or the Act.

(5) Transfer of Permits: permits are not transferable from one site or facility to another. Permits are transferable from one person to another provided a new permit application is completed by the proposed permittee, and the proposed permittee agrees to abide by all the permit conditions or outstanding orders in effect at the time of the requested transfer. Prior to the transfer of the permit, the new permittee must demonstrate compliance with Rule 391-13-4-.13. Until such time as this is demonstrated, the original permittee shall be fully responsible for financial responsibility for the facility. Unless notified otherwise by the Director, within 45 days of receipt by the Division of a properly completed request for transfer of the permit, the permit transfer shall stand approved.

(6) Applications for permits and major permit modifications under O.C.G.A. 12-8-24 shall be on forms as may be prescribed and furnished from time to time by the Division and shall be accompanied by all pertinent information as the Division may require.

(7) Material submitted shall be complete and accurate.

(8) Application for a permit or for the transfer of a permit shall contain, but shall not be limited, to the following:

(a) A sworn statement that the applicant and owner or operator, if different than applicant, for a permit or, in the case of a corporation, partnership, or association, an officer, Director, manager, or shareholder of five percent or more of stock or financial interest in said corporation, partnership, or association:

1. Has not intentionally misrepresented or concealed any material fact in the application submitted to the Director;
2. Is not attempting to obtain the permit by misrepresentation or concealment;
3. Has not been finally convicted in the State of Georgia or any federal court of any felony involving moral turpitude within three years immediately preceding the application for a permit;
4. Has not been convicted of any violations of any environmental laws punishable as a felony in any state or federal court within five years preceding the application for a permit;
5. Has not knowingly, willfully, and consistently violated the prohibitions specified in O.C.G.A. 12-8-30.7; and
6. Has not been adjudicated in contempt of any court order enforcing any federal environmental laws or any environmental laws of the State of Georgia within five years preceding the application for a permit.

(b) For a permit application, a statement that the applicant either owns the property on which the facility is to be located or had the permission of the owner to use the property for solid waste handling.

(c) For a permit application, in the case of a regional landfill or a landfill serving more than one county, a list of the areas to be served.

(d) For a permit application, written verification of zoning compliance as required by Rule 391-3-4-.05 paragraph (1)(a).

(e) For a permit application, a site assessment as required by Rule 391-3-4-.05, except CCR units which must meet criteria in 391-3-4-.10.

(9) Applications for permits will be reviewed together with such other information as may be necessary to ascertain the effect of such solid waste handling upon air, water, and land resources and human health. Conditions under which the handling will be permitted will be specified in the permit issued.

(10) Except for Private Industry Solid Waste Disposal Facilities, after July 1, 1992, each applicant for a permit shall provide verification that the facility is consistent with the local or regional solid waste management plans that the host jurisdiction generating solid waste destined to the facility can demonstrate that they are actively involved in and have a strategy for meeting the State-wide goal of waste reduction by July 1, 1996. The verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plans.

(11) Changes to Permit Status. The Director may approve a request to modify an existing solid waste handling permit to reflect the change of a facility's operational status. Such changes can include operating, closure, and post-closure.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.02

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "General" was filed as 391-1-1-.02 on November 21, 1972; effective December 12, 1972, as specified by the Agency.

Amended: Rule renumbered as 391-3-4-.02. Filed September 6, 1973; effective September 26, 1973.

Amended: Rule repealed a new Rule entitled "Solid Waste Handling Permit" adopted. Filed September 19, 1974; effective October 9, 1974.

Amended: F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; effective September 24, 1991.

Amended: F. Jun. 7, 1993 eff. Jun. 27, 1993.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.03 Public Participation

(1) Any city, county, group of counties, or authority beginning a process to select a site for a municipal solid waste disposal facility shall first call a public meeting as described herein.

(a) Notice such meeting shall be published at least once per week for two weeks immediately preceding the public meeting in a newspaper of general circulation serving such municipality or county.

(b) Where such proposed facility will serve a regional solid waste management authority established pursuant to O.C.G.A. 12-8-53, the notice procedure outlined in subparagraph (a) above shall be followed in each jurisdiction participating in such authority.

(c) The purpose of the public meeting shall be to discuss the waste management needs of the local government or region and to describe the siting process to be followed.

(2) The governing authority of any county or municipality taking action resulting in a municipal solid waste disposal facility siting decision shall notify the public as follows:

(a) Cause to be published in a newspaper of general circulation serving such city or county at least once per week for two weeks immediately preceding the date of such meeting, notice of the meeting at which the siting decision is to be made.

(b) Such notices shall state the time, place, and purpose of the meeting.

(c) The meeting shall be conducted by the governing authority taking the action.

(3) Upon submission of an application to the Division for any municipal solid waste disposal facility for which a permit (other than a permit-by-Rule) is required, the applicant, within fifteen (15) days of the submission of said application, shall take the following actions:

(a) Publish public notice of the application in a newspaper of general circulation serving the host county if the proposed facility or expanded facility is to serve no more than one county;

(b) Publish public notice of the application in a newspaper of general circulation serving each affected if the proposed facility or expanded facility is to serve more than one county;

(c) Provide written notice of the permit application to the governing body of each affected county in subparagraph (a) or (b) above; to the governing body of each local government within subparagraph (a) or (b) above; and to the regional development center;

(d) Request that the public notice outlined herein to be displayed prominently in the courthouse of each county notified in (c) above.

(e) Upon notification by the Division that a proposed facility is suitable for the intended purpose, the host local government shall initiate a local notification and negotiation process as required in O.C.G.A. 12-8-32.

(4) The governing authority of the county or municipality will hold a public hearing not less than two weeks prior to the issuance of any permit, except for a private industry disposal facility, and notice of such hearing shall be posted at the proposed site and advertised in a newspaper of general circulation serving the county or counties in which the proposed activity will be conducted, at least thirty (30) days prior to such hearing. A typed copy of the hearing transcript shall be submitted to the Division.

(5) Whenever the Director issues, denies, revokes, suspends, or transfers, a permit or approves a major modification of a permit for a municipal solid waste disposal facility, he shall notify the legal organ and the chief elected official of the host local government in which the facility is located or is proposed to be located.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.03

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Solid Waste Plans" was filed as 391-1-1-.03 on November 21, 1972; effective December 12, 1972, as specified by the Agency.

Amended: Rule renumbered as 391-3-4-.03. Filed September 6, 1973; effective September 26, 1973.

Amended: Rule repealed and a new Rule entitled "Application for Permit" adopted. Filed September 19, 1974; effective October 9, 1974.

Amended: F. Jun. 9, 1989; eff. Jun. 29, 1989.

Repealed: New Rule entitled "Public Participation" adopted. F. Sept. 4, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.04 General

(1) No person shall engage in solid waste handling in a manner which will be conducive to insect and rodent infestation or the bar boring and feeding of wild dogs or other animals; impair the air quality; impair the quality of the ground or surface waters; impair the quality of the environment; or likely create other hazards to the public health, safety, or well-being as may be determined by the Director.

(2) Provisions of these Rules apply to all persons presently engaged in solid waste handling as well as all persons proposing to engage in solid waste handling.

(3) Exemptions provisions of these Rules shall not apply to any individual disposing of solid wastes originating from his own residence onto land or facilities owned by him when disposal of such wastes does not thereby adversely affect the public health. These Rules shall not apply to any individual, corporation, partnership, or cooperative disposing of livestock feeding facility waste from facilities with a total capacity of up to 1,000 cattle or 5,000 swine. Provided that if such individual, corporation, partnership, or cooperative shall provide an approved waste disposal system which is capable of properly disposing of the run-off from a "ten year storm" such individual, corporation, partnership or cooperative shall be further exempt regardless of total per head capacity. Nothing in these Rules shall limit the right of any person to use poultry or other animal manure for fertilizer.

(4) Prohibited Acts:

(a) Burning: no solid waste may be burned at a solid waste handling facility, except by thermal treatment technology facility approved by the Division.

(b) Scavenging: no person owning or operating a solid waste handling facility shall cause, suffer, allow or permit scavenging at such site.

(c) Open Dump: no solid waste may be disposed of by any person in an open dump, nor may any person cause, suffer, allow or permit open dumping on his property.

(d) Asphalt Shingles: no roofing shingles which contain asphalt may be disposed of except in construction and demolition or municipal solid waste landfills.

(5) The owner or occupant of any premises, office, business establishment, institution, industry, or similar facilities shall be responsible for the collection and transportation of all solid waste accumulated at the premises, office, business establishment, institution, or similar facility to a solid waste handling facility operating in compliance with these Rules unless arrangements have been made for such service with a collector operating in compliance with these Rules.

(6) Prohibited Wastes Disposal:

(a) If, because of unusual physical or chemical properties, or geological or hydrological conditions, or for other reasons, the Division finds that solid waste should not be accepted at a solid waste handling facility, the Division may require that such waste be prohibited, and that a proposal for disposal of such waste, with supporting data as may be deemed necessary, be submitted by the generator of such waste for consideration of approval by the Division. The prohibition of such waste shall continue in effect until an acceptable procedure for processing or disposal has been developed and approved.

(b) The following solid wastes are specifically prohibited from disposal at solid waste disposal facilities in Georgia:

1. lead acid batteries;

2. liquid waste in landfills, except as allowed in (9) below;

3. regulated quantities of hazardous waste as defined in Rules promulgated by the Board of Natural Resources, Chapter 391-3-11;

4. radioactive waste as defined in Rules promulgated by the Board of Natural Resources, Chapter 391-3-9, Radioactive Waste Material Disposal; and

5. polychlorinated biphenyls (PCB) waste as defined in 40 CFR, Part 761.

(c) Any generator who disposes of a prohibited waste or person who accepts for disposal a prohibited waste shall be deemed to be in violation of these Rules.

(7) Recovered Materials:

(a) Recovered materials and recovered materials processing facilities are excluded from regulation as solid wastes and solid waste handling facilities. To be considered exempt from regulation, the material must have a known use, reuse, or recycling potential; must be feasibly used, reused, or recycled; and must have been diverted or removed from the solid waste stream for sale, use, reuse, or recycling, whether or not requiring subsequent separation and processing.

(b) Materials accumulated speculatively are solid waste and must comply with all applicable provisions of these regulations.

(c) A recovered material is not accumulated speculatively if the person accumulating it can show that there is a known use, reuse, or recycling potential for the material, that the material can be feasibly sold, used, reused, or recycled and that during a calendar year commencing January 1 and ending December 31 of the same year, seventy-five percent (75%), by weight or volume, of the recovered material stored at a facility is recycled, sold, used, or reused. Any material that is accumulated speculatively and not in accordance with these requirements must be handled as solid waste.

(d) Proof of recycling, sale, use, or reuse shall be provided in the form of bills of sale, or other records showing adequate proof of movement of the material in question to a recognized recycling facility or for proper use or reuse from the accumulation point. In addition, proof must be provided that there is a known market or disposition for the recovered material. Persons claiming that they are owners or operators of recovered materials processing facilities must show that they have the necessary equipment to do so.

(e) A recovered material is "sold" if the generator of the recovered material or the person who recovered the material from the solid waste stream received consideration or compensation for the material because of its inherent value.

(f) A recovered material is "used, reused or recycled" if it is either:

1. Employed as an ingredient (including use as an intermediate) in a process to make a product (for example, utilizing old newspaper to make new paper products) or

2. Employed in the same or different fashion as its original intended purpose without physically changing its composition (for example, use of old automobiles for spare parts or donation of clothing or furniture to charitable organizations) or

3. Employed in a particular function or application as an effective substitute for a commercial product (for example, utilizing shredded tires in asphalt or utilizing refuse - derived fuel as a substitute for fuel oil, natural gas, coal, or wood in a boiler or industrial furnace) as long as such substitution does not pose a threat to human health or the environment and so long as the facility is not a solid waste thermal treatment facility.

4. A material is not "used, reused or recycled" when it is applied to or placed on or in the land in a manner that constitutes disposal which, in the opinion of the Director, may pose a threat to human health and the environment (for example, utilizing soil containing levels of hazardous constituents, as listed in Chapter 391-3-11, 40 CFR Part 261, Appendix VIII for fill material when those levels are greater than the background levels in the area to be filled, land applying sludge in excess of generally accepted agricultural practices or use of inherently waste-like materials as fill material).

(8) Asbestos Containing Waste.

(a) Collection.

1. Vehicles used for the transportation of containerized asbestos waste shall have an enclosed carrying compartment or utilize a covering sufficient to contain the transported waste, prevent damage to containers, and prevent release or spillage from the vehicle.
2. Vehicles used to reduce waste volume by compaction shall not be used.
3. Vacuum trucks used to transport waste slurry must be constructed and operated to ensure that liquids do not leak from the truck.

(b) Disposal.

1. Asbestos containing waste is to be disposed of only in a permitted landfill or other facility authorized by the Division for acceptance of asbestos containing waste.
2. Asbestos containing waste shall be sealed in leak-proof containers labeled with "Caution - Contains Asbestos Fibers - Avoid Opening or Breaking Container - Breathing Asbestos is Hazardous to Your Health."
3. Asbestos containing waste shall be disposed of in such a manner as not to destroy the integrity of the asbestos containing materials containers prior to the placement of cover material. This waste shall be completely covered immediately after deposition with a minimum of six (6) inches of non-asbestos material.

(9) Liquid Waste Restrictions at Landfills.

(a) Bulk or noncontainerized liquid waste may not be placed in landfill units unless

1. The waste is household waste other than septic waste; or
2. The waste is leachate or gas condensate derived from the landfill unit, whether it is a new or existing landfill or lateral expansion, is designed with a composite liner and leachate collection system as described in paragraph (1)(d) of Rule 391-3-4-.07. The owner or operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record.

(b) Containers holding liquid waste may not be placed in a landfill unit unless:

1. The container is a small container similar in size to that normally found in household waste;
2. The container is designed to hold liquids for use other than storage; or
3. The waste is household waste.

(c) For purposes of this section:

1. "Liquid waste" means any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).

2. "Gas condensate" means the liquid generated as a result of gas recovery process(es) at the landfill unit.

(10) Variances, waivers, and alternative compliance schedules which may be granted under these Rules, Chapter 391-3-4, may not allow a requirement or compliance schedule which is less stringent than those found in 40 CFR, Part 258, as amended, 56 Fed. Reg. 51016-51039 October 9, 1991.

(11) Compliance with the Rules for Solid Waste Management, Chapter 391-3-4, does not relieve any person from complying with all other applicable local, state, or federal rules or statutes.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.04

Authority: O.C.G.A. § 12-8-20et seq., as amended.

History. Original Rule entitled "Collection and Transportation," was filed as 391-1-1-.04 on November 21, 1972; effective December 12, 1972, as specified by the Agency.

Amended: Rule renumbered as 391-3-4-.04. Filed September 6, 1973; effective September 26, 1973.

Amended: Rule repealed and a new Rule entitled "General" adopted. Filed September 19, 1974; effective October 9, 1974.

Amended: F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Jul. 31, 1997; eff. Aug. 20, 1997.

Amended: F. Sep. 13, 2016; eff. Oct. 3, 2016.

Rule 391-3-4-.05 Criteria for Siting

(1) The following criteria must be met for a site proposed as a solid waste handling facility:

(a) Zoning. The site must conform to all local zoning/land use ordinances. Written verification must be submitted to the Division by the applicant demonstrating that the proposed site complies with local zoning and land use ordinances, if any. This verification shall include a letter from the local governmental authority stating that the proposed site complies with local zoning or land use ordinances, if any. This verification shall be provided at the time of submission of a permit application and reaffirmed by the governmental authority prior to permit issuance.

(b) Disposal Facility Siting Decision. Whenever any county, municipality group of counties, or authority begins a process to select a site for a municipal solid waste disposal facility, documentation shall be submitted which demonstrates compliance with O.C.G.A.12-8-26(a), and whenever the governing authority of any county or municipality takes action resulting in a publicly- or privately-owned municipal solid waste disposal facility siting decision, documentation shall be submitted which demonstrates compliance with O.C.G.A. 12-8-26(b).

(c) Airport Safety:

1. New MSWLF units or lateral expansions of existing units shall not be located within 10,000 feet (3,048 meters) of any public-use or private-use airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any public-use or private-use airport runway end used by only piston-type aircraft.

2. Owners or operators of existing MSWLF units, that are located within 10,000 feet (3,048 meters) of any public- use or private-use airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any public- use or private-use airport runway end used by only piston-type aircraft must demonstrate that the units are designed and operated so that the MSWLF units do not pose a bird hazard to aircraft.

3. Owners or operators proposing to site new MSWLF units and lateral expansions within a five-mile radius of any public-use or private-use airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the Federal Aviation Administration (FAA).

4. The owner or operator must place the demonstration in paragraph 2. of this section in the operating record and notify the Director that it has been placed in the operating record not later than October 1, 1993.

5. For purposes of this section:

a. "Public-use airport" means an airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

b. "Private-use airport" means an airport that is not open to the public and which may not be used without prior permission of the airport owner and which has restrictions other than the physical capacities of available facilities and such airport is shown on the Sectional Aeronautical Charts published by the U.S. Department of Commerce for Atlanta, Jacksonville, or New Orleans, which charts are dated at least one year prior to the submission of a MSWLF permit or major permit modification application.

c. "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(d) Floodplains. A solid waste handling facility located in the 100-year floodplain shall not restrict the flow of the 100- year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste so as to pose a hazard to human health and the environment. The owner or operator must place a demonstration of compliance in the operating record and notify the Director that it has been placed in the operating record.

1. For purposes of this section:

a. "Floodplains" means the low land and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

b. "100-year flood" means a flood that has a 1-percent or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

c. "Washout" means the carrying away of solid waste by waters of the base flood.

(e) Wetlands. A solid waste handling facility shall not be located in wetlands, as defined by the U.S. Corps. of Engineers, unless evidence is provided to the Director, by the applicant, that use of such wetlands has been permitted or otherwise authorized under all other applicable state and federal laws and rules. The owner or operator must place a demonstration of compliance in the operating record and notify the Directory that it has been placed in the operating record.

(f) Fault Areas.

1. New landfill units and lateral expansions of existing landfills shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time unless the owner or operator demonstrates to the Director that an alternative setback distance of less than 200 feet (60 meters) will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment.

2. For the purposes of this section.

a. "Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

b. "Displacement" means the relative movement of any two sides of a fault measured in any direction.

c. "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

(g) Seismic Impact Zones.

1. New landfill units and lateral expansions shall not be located in seismic impact zones, unless the owner or operator demonstrates to the Director that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record.

2. For the purposes of this section:

- a. Seismic impact zone means an area with a ten percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull will exceed 0.10g in 250 years.
- b. Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site -specific seismic risk assessment.
- c. Lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(h) Unstable areas.

1. Owners or operators of new landfill units, existing landfill units, and lateral expansions located in an unstable area must demonstrate that engineering measures have been incorporated into the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted. The owner or operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record. The owner or operator must consider the following factors, at a minimum, when determining whether an area is unstable:

- a. On-site or local soil conditions that may result in significant differential settling;
- b. On-site or local geologic or geomorphologic features; and
- c. On-site or local human-made features or events (both surface and subsurface).

2. For the purposes of this section:

- a. "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.
- b. "Structural components" means liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the landfill that is necessary for protection of human health and the environment.
- c. "Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill unit.
- d. "Areas susceptible to mass movement" mean those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the landfill unit, because of natural or man-induced events, results in the downslope transport of soil and rock

material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluction, block sliding, and rock fall.

e. "Karst terrains" means areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

(i) Closure of existing municipal solid waste landfill units:

1. Existing MSWLF units that cannot make the demonstration specified in section (c), pertaining to airports, section (d), pertaining to floodplains, or section (h), pertaining to unstable areas, must close by October 9, 1996 in accordance with Rule 391-3-4-.11 and conduct post-closure care activities in accordance with Rule 391-3-4-.12.

2. The deadline for closure required by subparagraph 1. of this paragraph may be extended up to two years if the owner or operator demonstrates to the Director that:

a. There is no available alternative disposal capacity; and

b. There is no immediate threat to human health and the environment.

(j) Significant Groundwater Recharge Areas. A new municipal solid waste landfill or lateral expansion of an existing municipal solid waste landfill shall not have any part of such site located within two miles of any area that has been designated by the Director as a significant groundwater recharge area unless such municipal solid waste landfill will have a liner and leachate collection system. In the case of a regional landfill which accepts solid waste generated outside the counties or special districts constituting the region or a municipal solid waste landfill which accepts solid waste generated outside the county in which the landfill is located, no part of such site shall be within any area that has been designated as a significant groundwater recharge area.

(k) Hydrological Assessment. A hydrological site investigation shall be conducted with the following factors, as a minimum, evaluated:

1. Distance to nearest point of public or private drinking water supply: all public water supply wells or surface water intakes within two miles and private (domestic) water supply wells within one-half mile of a landfill must be identified;

2. Depth to the upper most aquifer: for landfills, the thickness and nature of the unsaturated zone and its ability for natural contamination control must be evaluated;

3. Uppermost aquifer gradient: for landfills, the direction and rate of flow of groundwater shall be determined in order to properly evaluate the potential for contamination at a specific site. Measurements of water levels in site exploratory borings and the preparation of water table maps are required. Borings to water are required to estimate the configuration and gradient of the uppermost aquifer;

4. Topographic setting: features which shall be provided include, but are not limited to, all upstream and downstream drainage areas affecting or affected by the proposed site, floodplains, gullies, karst conditions, wetlands, unstable soils and percent slope;

5. Geologic setting: for landfills, the depth to bedrock, the type of bedrock and the amount of fracturing and jointing in the bedrock shall be determined. In limestone or dolostone regions, karst terrain shall not be used for waste disposal. This consideration does not preclude the siting of landfills in limestone terrains, but rather is intended to prevent landfills from being sited in or adjacent to sink-holes, provided, however, that the demonstration required by subparagraph (h) has been made.

6. Hydraulic conductivity: evaluation of landfill sites shall take into consideration the hydraulic conductivity of the surface material in which the wastes are to be buried, as well as the hydraulic conductivity of the subsurface materials underlying the fill;

7. Sorption and attenuation capacity: for landfills, the sorptive characteristics of an earth material and its ability to absorb contaminants shall be determined; and

8. Distance to surface water: municipal solid waste landfills shall not be situated within two miles upgradient of any surface water intake for a public drinking water source unless engineering modifications such as liners and leachate collection systems and ground-water monitoring systems are provided.

(1) New MSWLF units shall not be located within two miles of a federally restricted military air space which is used for a bombing range.

(2) Construction/Demolition waste landfills must comply with the siting criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14, Appendix B.

(3) Industrial waste landfills permitted to receive only a single type industrial waste (monofil) or receive only a single industry's waste, must comply with the siting criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia ", Circular 14, Appendix A. Commercial industrial waste landfills must meet the same siting criteria as municipal solid waste landfills.

(4) A site assessment report addressing the criteria listed above shall be prepared by a geologist registered in Georgia or a geotechnical engineer registered in Georgia and submitted to the Division for review at the time of submitting a permit application. The site assessment report shall be prepared in accordance with Circular 14, 1991, (amended 1997) as published by the Georgia Geologic Survey, Georgia Environmental Protection Division.

(5) Monitoring wells and borings shall be constructed by a driller having a valid and current bond with the Water Well Standards Advisory Council.

(6) CCR units must meet the siting criteria in 391-3-4-.10.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.05

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Disposal Operations" adopted. F. Sept. 6, 1973; eff. Sept. 26, 1973.

Repealed: New Rule entitled "Plans Required" adopted. F. Sept. 19, 1974; eff. Oct. 9, 1974.

Repealed: New Rule entitled "Criteria for Siting" adopted. F. June 9, 1989; eff. June 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. June 7, 1993; eff. June 27, 1993.

Amended: F. July 31, 1997; eff. Aug. 20, 1997.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.06 Permit by Rule for Collection, Transportation, Processing, and Disposal

(1) Permit-by-Rule. Notwithstanding any other provision of these Rules, collection operations, transfer station operations, inert waste landfill operations, waste processing and thermal treatment operations, wastewater treatment and pretreatment plant sludge disposal operations, and yard trimmings waste landfill operations shall be deemed to have a solid waste handling permit if the conditions in paragraph (2) are met and the conditions in paragraph (3), for that particular category of operation are met.

(2) Notification. Within 30 days of commencing solid waste handling activities which are covered under a permit-by-Rule, notification must be made to the Director of such activity. Notification shall be made on such forms as are provided by the Director. Persons failing to notify the Director of such activities shall be deemed to be operating without a permit.

(3) Categories of Operations:

(a) Collection Operations:

1. Vehicle construction: vehicles or containers used for the collection and transportation of garbage and similar putrescible wastes, or mixtures containing such wastes, shall be covered, substantially leakproof, durable, and of easily cleanable construction.
2. Vehicle maintenance: solid waste collection and transportation vehicles shall be cleaned frequently and shall be maintained in good repair.
3. Littering and spillage: vehicles or containers used for the collection and transportation of solid waste shall be loaded and moved in such manner that the contents will not fall, leak or spill therefrom and shall be covered when necessary to prevent blowing of material from the vehicle.
4. No regulated quantities of hazardous wastes may be collected and transported except in accordance with the provisions of the Georgia Hazardous Waste Management Act, O.C.G.A. 12-8-60 et seq.
5. Local ordinances: it is the responsibility of the collector to comply with all local rules, regulations, and ordinances pertaining to operation of solid waste collection systems.
6. All wastewater from cleaning of vehicles must be handled in a manner which meets all applicable environmental laws and regulations.
7. All collected solid waste must be deposited only in a permitted solid waste handling facility authorized to receive the applicable waste types.
8. After July 1, 1992, municipal solid waste may not be transported from a jurisdiction to a municipal solid waste disposal facility located in another county unless the jurisdiction generating the waste is actively involved in and has a strategy for meeting the state-wide goal of waste reduction by July 1, 1996.

(b) Transfer Station Operations:

1. Solid Waste shall be confined to the interior of transfer stations, and not allowed to scatter to the outside. Waste shall not be allowed to accumulate, and floors shall be kept clean and well drained.
2. Sewage solids shall be excluded from transfer stations.

3. Dust, odors and similar conditions resulting from transfer operations shall be controlled at all times.
4. Rodents, insects and other such pests shall be controlled.
5. Any contaminated runoff from washwater shall be discharged to a wastewater treatment system and, before final release, shall be treated in a manner approved by the Division.
6. Hazardous Waste: no person owning or operating a transfer station shall cause, suffer, allow, or permit the handling of regulated quantities of hazardous waste.
7. Liquid wastes restricted from landfill disposal by Rule 391-3-4-.04(9) shall be excluded from transfer stations. Transfer stations in existence on August 1, 2004 and in compliance with all other regulations applicable to permit by rule transfer stations may continue to handle such liquid wastes until a solid waste processing facility permit is issued or August 1, 2006, whichever occurs first.

(c) Inert Waste Landfill Operations: Inert Waste Landfills in existence on the effective date of this Rule and in compliance with all other regulations applicable to permit by rule for inert waste landfill operations may continue to operate under the conditions below until a solid waste handling permit is issued or December 1, 2014, whichever occurs first. Provided a complete permit application is submitted by June 1, 2014, the Director may extend the deadline for permitting until a final decision on permit issuance or denial is made. If the requirements for a permit cannot be met by December 1, 2014, or other deadline established by the Director, the operator must cease receipt of waste on that date and complete closure by June 1, 2015, or six months from the Director's denial of the requested permit application. Any inert waste landfill which, as of January 1, 2014, has been certified by a professional engineer registered in accordance with Chapter 15 of Title 43 as being in full compliance with all permit by rule requirements established in the rules and regulations of the division as they existed on January 1, 2012, may continue to operate under such permit by rule requirements. Except as provided in sub-paragraph (f), no person may begin operating a new inert waste landfill after the effective date of this rule without first obtaining a site specific solid waste handling permit for an inert waste landfill.

1. Only waste that will not or is not likely to produce leachate of environmental concern may be disposed of in an inert waste landfill. Only earth and earth-like products, concrete, cured asphalt, rock, bricks, yard trimmings, and land clearing debris such as stumps, limbs and leaves, are acceptable for disposal in an inert waste landfill.
2. No portion of waste disposal area shall be located within one hundred (100) linear feet of any property line or enclosed structure.
3. Materials placed in inert waste landfills shall be spread in layers and compacted to the least practical volume; and, a uniform compacted layer of clean earth cover no less than one (1) foot in depth shall be placed over all exposed inert waste material at least monthly.
4. The inert waste landfill site shall be graded and drained to minimize runoff onto the landfill surface, to prevent erosion and to drain water from the surface of the landfill.
5. Access to inert waste landfills shall be limited to authorized entrances which shall be closed when the site is not in operation.
6. Suitable means shall be provided to prevent and control fires. Stockpiled soil is considered to be the most satisfactory fire fighting material.

7. A uniform compacted layer of final cover not less than two (2) feet in depth and a vegetative cover shall be placed over the final lift not later than one month following final placement of inert waste within that lift.
8. Notice of final closure must be provided to the Director within 30 days of receiving the final load of waste. Any site not receiving waste for in excess of 180 days shall be deemed abandoned and in violation of these Rules unless properly closed. Notice of closure must include the date of final waste receipt and an accurate legal description of the boundaries of the landfill.
9. All deeds for real property which have been used for landfilling shall include notice of the landfill operations, the date the landfill operation commenced and terminated, an accurate legal description of the actual location of the landfill, and a description of the type of solid wastes which have been deposited in the landfill. Concurrent with the submission of notice of final closure to the Director, the owner or operator must submit to the Director confirmation that the information required in this section has been noticed on the property deed.
10. All wastes received at the landfill must be measured and reported as required by Rule 391-3-4-.17.
11. All other applicable federal, state, and local laws, rules, and ordinances, including erosion and sediment control, and any applicable federal wetlands permits, must be fully complied with prior to commencement of landfilling operations.

(d) On-site Waste Processing and Thermal Treatment Operations:

1. For purposes of this Rule, "On-site Processing or Thermal Treatment Facility" shall mean a facility that processes or thermally treats, no less than 75 percent, by weight, solid waste generated at the permit-by-Rule facility location or facilities owned by the same person who owns the property containing the permit-by-Rule facility. On-site facilities may include fixed or mobile facilities either owned or under contract with the solid waste generator of 75 percent of the solid waste so long as the solid waste generator maintains legal control of the solid waste while at the permit-by-Rule facility.
2. Capacity: the on-site waste processing and thermal treatment technology facility shall be adequate in size and capacity to manage the projected volume of solid waste and residue generated.
3. Residue: on-site thermal treatment technology facilities shall be designed in such a manner to expedite the routine sampling of bottom and fly ash. Temperature and combustion time shall be sufficient to produce a satisfactory residue, essentially free of odors and unstable organic matter, and such residue shall be promptly deposited in a municipal solid waste landfill having a liner and leachate collection system and operated and maintained as provided herein, handled in such other manner as may be approved by the Division, or if shown by testing to be hazardous, handled in accordance with the provisions of the Georgia Hazardous Waste Management Act, O.C.G.A. 12-8-60, et seq. Residue from thermal treatment technology facilities that burn only biomedical wastes may be deposited in any permitted municipal solid waste landfill. Residue from the burning of any wastes, other than biomedical wastes, must, if landfilled, be placed in landfills having liners and leachate collection systems unless the Division grants an exemption.
4. Storage: the areas for storing wastes prior to processing must be clearly defined and the maximum capacity specified. No waste may be stored in excess of the designated capacity.
5. Disposal of waste: treated waste from on-site processing facilities and any material not sold or used, reused, or recycled must be disposed in a permitted disposal facility.

6. Air quality: on-site processing and thermal treatment technology facilities shall be designed and operated in such manner as to meet any air quality standards of the Division.
7. Wastewater: on-site processing and thermal treatment technology facilities shall be designed so that any wastewater generated will be discharged to a wastewater treatment system and, before final release, will be treated in a manner approved by the Division.
8. Fire protection: on-site processing and thermal treatment technology facility designs shall provide for fire control equipment placed near the storage and charging area, and elsewhere as needed.
9. Supervision: operation and management of on-site thermal treatment technology facilities shall be under the direct supervision and control of an operator who is present at all times of operation and is qualified in thermal treatment technology management by training, education or experience. Operation and management of on-site processing facilities shall be under the supervision and control of a responsible individual properly trained in the operation of such facilities at all times during operation.
10. Prohibited waste: no lead acid batteries, radioactive waste, or regulated quantities of hazardous waste or polychlorinated biphenyls may be accepted. The operator must have a plan for excluding these wastes.
11. Cleanliness and sanitation: on-site processing and thermal treatment technology facilities shall be maintained in a clean and sanitary condition. Solid waste shall be confined to the designated storage area.
12. Record keeping: accurate written, daily records by actual weight or by the methods approved in accordance with O.C.G.A. 12-8-31.1(g) shall be kept of all waste processed or disposed at the on-site processing and thermal treatment technology facility. Such records shall include the source of the waste, by facility name and location. Copies of such records shall be maintained for a period of at least three (3) years and shall be submitted to the Division quarterly on such forms as prescribed by the Division.
13. Local ordinances: it is the responsibility of the operator of on-site processing and thermal treatment technology facilities to comply with all local rules, regulations, and ordinances pertaining to operation of these facilities and all other applicable federal and state laws and rules.
14. All facilities handling biomedical waste must, in addition to this Rule, meet any requirements of Rule 391-3-4-.15.

(e) Wastewater Treatment or Pretreatment Plant Sludge Disposal:

1. All wastewater treatment or pretreatment plant sludges that are not beneficially used, reused, or recycled in accordance with Rule 391-3-4-.04 or that are not disposed of by landfilling in accordance with Rule 391-3-4-.07, must be handled in accordance with an approval or a permit issued by the Division under authority of the Georgia Water Quality Control Act, O.C.G.A. 12-5-20, et seq. or the Georgia Air Quality Act, O.C.G.A. 12-9-1 et seq.

(f) Yard Trimmings Waste Landfill Operations: Landfill Operations with 5 acres or less of waste disposal area and located in counties with a population less than 65,000 people and accepting exclusively yard trimmings as defined by these Rules can be permitted under the following conditions:

1. Only yard trimmings are acceptable for disposal in a yard trimmings waste landfill. Vegetative matter from land clearing operations shall not be disposed in a yard trimmings waste landfill.

2. No portion of the waste disposal area shall be located within two hundred (200) linear feet of any property line or enclosed structure.
3. Materials placed in yard trimmings waste landfills shall be spread in layers and compacted to the least practical volume; and, a uniform compacted layer of clean earth cover no less than one (1) foot in depth shall be placed over all exposed yard trimmings waste material at least monthly.
4. The yard trimmings waste landfill site shall be graded and drained to minimize runoff onto the landfill surface, to prevent erosion and to drain water from the surface of the landfill.
5. Access to yard trimmings waste landfills shall be limited to authorized entrances which shall be closed when the site is not in operation.
6. Suitable means shall be provided to prevent and control fires. Stockpiled soil is considered to be the most satisfactory firefighting material.
7. A uniform compacted layer of final cover not less than two (2) feet in depth and a vegetative cover shall be placed over the final lift not later than one month following final placement of yard trimmings waste within that lift.
8. Notice of final closure must be provided to the Director within 30 days of receiving the final load of waste. Any site not receiving waste for in excess of 180 days shall be deemed abandoned and in violation of these Rules unless properly closed. Notice of closure must include the date of final waste receipt and an accurate legal description of the boundaries of the landfill.
9. All deeds for real property which have been used for landfiling shall include notice of the landfill operations, the date the landfill operation commenced and terminated, an accurate legal description of the actual location of the landfill, and a description of the type of solid wastes which have been deposited in the landfill. Concurrent with the submission of notice of final closure to the Director, the owner or operator must submit to the Director confirmation that the information required in this section has been noticed on the property deed.
10. All wastes received at the landfill must be measured and reported as required by Rule 391-3-4-.17.
11. All other applicable federal, state, and local laws, rules, and ordinances, including erosion and sediment control, and any applicable federal wetlands permits, must be fully complied with prior to commencement of landfiling operations.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.06

Authority: O.C.G.A. § 12-8-20et seq., as amended.

History. Original Rule entitled "Enforcement" adopted. F. Sept. 6, 1973; eff. Sept. 26, 1973.

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Amended: F. Jan. 8, 2014; eff. Jan. 28, 2014.

Amended: F. Sep. 13, 2016; eff. Oct. 3, 2016.

Rule 391-3-4-.07 Landfill Design and Operations

(1) All landfills must be designed by a professional engineer registered to practice in Georgia and designed in accordance with the following criteria:

(a) Site limitations: the landfill must be designed in such a manner as to comply with the specific site limitations issued by the Division as a part of a site approval.

(b) Buffers: facilities which have submitted a permit application to the Division prior to July 1, 1991 must provide a minimum 100 foot buffer between the property line and the waste disposal boundary. All other facilities must provide a minimum 200 foot buffer between the waste disposal boundary and the property line and a minimum 500 foot buffer between the waste disposal boundary and any occupied dwelling and the dwelling's operational private, domestic water supply well in existence of the date of permit application. The 500-foot buffer may be reduced if the current owner of the dwelling provides a written waiver consenting to the waste disposal boundary being closer than 500 feet. The waste disposal boundary is defined as the limit of all waste disposal areas, appurtenances, and ancillary activities (including but not limited to internal access roads and drainage control devices). No land disturbing activities are to take place in these buffers, except for construction of groundwater monitoring wells and access roads for direct ingress or egress, unless otherwise specified in a facility design and operation plan or corrective action plan approved by the Division.

(c) Site survey control shall be provided to ensure the operation will be on permitted lands. Survey control will be accomplished through use of permanent, accessible benchmarks, survey control stakes, and/or boundary markers which designate and/or delineate all permitted areas. Survey control shall be as indicated on the design and operational plan. Where necessary for construction or operational purposes, vertical as well as horizontal survey control will be established and maintained to delineate fill boundaries, buffers, and property boundaries.

(d) Liners and Leachate Collection Systems: new MSWLF units and lateral expansions shall be constructed with liners and leachate collection systems. The liner and leachate collection system must ensure that the concentration values listed in Table 1 will not be exceeded in the uppermost aquifer at the relevant point of compliance. The liner and leachate collection system must be designed and installed under the supervision of a professional engineer registered to practice in Georgia who shall certify the installation.

TABLE 1

Chemical	MCL(mg/l)
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2, 4 - Dichlorophenoxy acetic acid	0.1
1, 4 - Dichlorobenzene	0.075
1, 2 - Dichloroethane	0.005
1, 1 - Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1

Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1, 1, 1-Trichloromethane	0.2
Trichloroethylene	0.005
2, 4, 5- Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002

1. If the MSWLF is located in an area of higher pollution susceptibility, as defined by Hydrologic Atlas #20, A Pollution Susceptibility Map of Georgia, or in a significant ground water recharge area as designated by Hydrologic Atlas #18, the liner and leachate collection system must, at a minimum, be designed with:

- a. a composite liner, as defined in paragraph c. of this section and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner.
- b. at least a five foot separation between the synthetic liner and the seasonal high ground water elevation.
- c. For purposes of this section, "composite liner" means a system consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML components consisting of High Density Polyethylene (HDPE) shall be at least 60- mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component.

2. The relevant point of compliance shall be no more than 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the MSWLF unit. In determining the relevant point of compliance, the Division shall consider at least the following factors:

- a. The hydrogeologic characteristics of the facility and surrounding land;
- b. The volume and physical and chemical characteristics of the leachate;
- c. The quantity, quality, and direction, of flow of ground water;
- d. The proximity and withdrawal rate of the ground-water users;
- e. The availability of alternative drinking water supplies;
- f. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water and whether groundwater is currently used or reasonably expected to be used for drinking water;
- g. Public health, safety, and welfare effects; and
- h. Practicable capability of the owner or operator.

3. For MSWLF units not located in significant ground water recharge areas or areas of higher pollution susceptibility, liners and leachate collection systems may meet a design standard other

than that specified in subparagraph (1)(d) 1. of this Rule, so long as such design ensures that the concentration values listed in Table 1 of this Rule will not be exceeded in the uppermost aquifer at the relevant point of compliance. The factors listed in subparagraph 2. above for determining the relevant point of compliance, shall also be used in determining the suitability of the liner and leachate collection system design.

(e) Erosion and Sedimentation Control: all surface runoff from disturbed areas must be controlled by the use of appropriate erosion and sedimentation control measures or devices. Sediment basins must be designed to handle both the hydraulic loading for the 25 year, 24-hour storm and the sediment loading from the drainage basin for the life of the site. Runoff from the facility must be designed for flow through permanent sediment control impoundments which are designed to assure discharges meeting the requirements of O.C.G.A. 12-7-6(18).

(f) Vegetation: the plan must call for the vegetation of any disturbed area that will remain exposed for more than three (3) months. Vegetation of final cover must take place within two (2) weeks after final cover placement.

(g) Sequence of Filling: the plan must define a sequence of filling showing a detailed progression of filling the entire site that minimizes any problems with drainage and all weather access roads to the working face.

(h) Limited Access: a gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an operator is not on duty. A fence or other suitable barrier must be provided around the site, including impoundments, leachate collection and treatment systems and gas venting and processing facilities, sufficient to prevent unauthorized access.

(i) Final Grading: the grade of final slopes shall be designed to:

1. insure permanent slope stability;
2. control erosion due to rapid water velocity and other factors;
3. allow compaction, seeding, and vegetation of cover material placed on the slopes;
4. minimize percolation of precipitation into final cover and provide diversion of surface runoff from disposal area; and
5. meet the final closure requirements of Rule 391-3-4-.11.
6. the grade of the final surface of the facility may not be less than 3 percent nor greater than 33 percent.

(j) Access Roads: access roads shall be designed to provide for the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

(k) Fire Protection: the disposal site must be designed to prevent and minimize the potential for fire or explosion. A minimum supply of one day of cover material must be maintained within 200 feet of the working face for fire fighting purpose, unless other acceptable means have been provided and approved by the Director.

(l) Ground water and Surface water Monitoring Plan: the design must provide for a groundwater monitoring plan in accordance with the requirements for GroundWater Monitoring and Corrective Action as provided in Rule 391-3-4-.14. A surface water monitoring plan which will determine the impact of the facility on all adjacent surface waters must also be included.

(m) Closure Criteria: the design must provide for proper closure in accordance with Rule 391-3-4-.11.

(n) Post-Closure Care: the design must provide for Post-closure care in accordance with Rule 391-3-4-.12.

(o) Financial Responsibility: the design must provide for financial responsibility in accordance with Rule 391-3-4-.13.

(2) Construction Certification: upon receipt of a final and effective solid waste handling permit, construction may commence in accordance with the approved design and operational plan and permit conditions. Prior to receipt of solid waste, the Division must be provided with written certification by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division, within 15 days of receipt by the Division of the written certification, the facility owner or operator may commence disposal of solid waste. This process shall be repeated for each subsequent major construction phase, including but not limited to, new cells or trenches, additional monitoring wells, sediment ponds, leachate treatment systems, modifications adding a new solid waste handling process, and application of final cover.

(3) Any person engaged in the operation of landfills shall comply with the following performance requirements:

(a) Air Criteria.

1. Owners or operators of all MSWLFs must ensure that the units not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the U.S. Environmental Protection Agency pursuant to Section 110 of the Clean Air Act, as amended.

2. Open burning of solid waste, except for the infrequent burning of agricultural wastes, silvicultural wastes, landclearing debris, diseased trees, or debris from emergency cleanup operations, is prohibited at all MSWLF units.

(b) Unloading: solid waste unloading shall be restricted to the working face of the operation in such manner that waste may be easily incorporated into the landfill with available equipment.

(c) Procedures for excluding receipt of prohibited wastes:

1. Not later than October 1, 1993, owners or operators of all landfills must implement a program at the facility for detecting and preventing the disposal of regulated quantities of hazardous wastes as defined in the Rules for Hazardous Waste Management, Chapter 391-3-4-11, polychlorinated biphenyls (PCB) wastes as defined in 40 CFR, Part 761, and other wastes prohibited by Rule 391-3-4-.04, or the facility's permit. This program must include, at a minimum:

a. random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain prohibited wastes:

b. records of any inspections:

c. training of facility personnel to recognize prohibited wastes; and

d. notification of the Director if a prohibited waste is discovered at the facility.

2. The procedures must be made a part of the operating record.

(d) Spreading and Compaction: solid waste shall be spread in uniform layers and compacted to its smallest practical volume before covering with earth.

(e) Daily Cover:

1. Except as provided in paragraph 2. of this section, the owner or operator of all MSWLF units must cover disposed solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.
2. Alternative materials (such as foams or tarps) of an alternative thickness (other than at least six inches of earthen material) may be approved by the Director if the owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

(f) Disease Vector Control.

1. Owners or operators of all MSWLF units must prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and environment.
2. For purposes of this Rule, "disease vectors" means any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting disease to humans.

(g) Intermediate Cover: a uniform compacted layer of clean earth cover not less than one (1) foot in depth shall be placed over each portion of any intermediate lift following completion of that lift.

(h) Explosive Gases Control.

1. Owners or operators of all MSWLF units must ensure that:
 - a. The concentration of methane gas generated by the facility structures (excluding gas control or recovery system components); and
 - b. The concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.
2. Owners or operators of all MSWLF units must implement a routine methane monitoring program to ensure that the standards of this section are met.
 - a. The type and frequency of monitoring must be determined based on the following factors:
 - (i) Soil conditions:
 - (ii) The hydrogeologic conditions surrounding the facility;
 - (iii) The hydraulic conditions surrounding the facility;
 - (iv) The location of facility structures and property boundaries.
 - b. The minimum frequency of monitoring must be quarterly.
3. If methane gas levels exceeding the limits specified in this section are detected, the owner or operator must:
 - a. Immediately take all necessary steps to ensure protection of human health and notify the Director;

b. Within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and c. Within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the Director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

4. For purposes of this section, lower explosive limit means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25°C and atmospheric pressure.

(i) Run-on/Run-off Control.

1. Owners or operators of all MSWLF units must design, construct, and maintain:

- a. A run-on control system to prevent flow onto the active portion of the landfill during the peak discharge from a 25-year storm;
- b. A run-off control system from the active portion of the landfill to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

2. Run-off from the active portion of the landfill unit must be handled in accordance with section (g) of this Rule.

(j) Surface water requirements; MSWLF units shall not:

- 1. Cause a discharge of pollutants into waters of the state or the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination system (NPDES) requirements pursuant to section 402:
- 2. Cause the discharge of a nonpoint source of pollution to waters of the state or the United States, including wetlands, that violates any requirement of an area-wide or State-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended.

(k) Continuity of Operation: all-weather access roads shall be provided to the working face of the disposal operation and provisions shall be made for prompt equipment repair or replacement when needed.

(l) Environmental Protection: the landfill shall be operated in such manner as to prevent air, land, or water pollution, and public health hazards.

(m) Prohibited Waste: no liquids, except as allowed in subparagraph (9) of Rule 391-3-4-.04 lead acid batteries, radioactive waste, or regulated quantities of hazardous waste may be accepted. The operator must have a plan for excluding these wastes.

(n) Supervision: the disposal facility shall be under the supervision of an operator who is properly trained in the operation of landfills and the implementation of Design and Operational Plans and who, if the facility is a municipal solid waste disposal facility, is certified in accordance with O.C.G.A. 12-8-24.1 and these Rules.

(o) Limited Access: access to landfills shall be limited to authorized entrances which shall be closed when the site is not in operation. Owners and operators of all landfills must control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

(p) Litter Control: scattering of wastes by wind shall be controlled by fencing or other barriers and the entire site shall be inspected daily and all litter removed.

(q) Fire Protection: suitable measures to control fires that may start shall be provided. Stockpiled soil is considered to be the most satisfactory fire fighting material.

(r) Erosion and Sedimentation Control: all erosion and sedimentation control measures or facilities, whether temporary or permanent, shall be continuously maintained by the operator so as to be effective. Runoff from the facility must be directed to permanent sediment control impoundments which are designed to assure discharges meeting the requirements of O.C.G.A.12-7-6(18). Erosion and sedimentation control measures and facilities will be employed prior to and concurrent with clearing, grading, overburden removal, access or other land disturbing activities for preparation of the site for landfilling. Immediate measures must be implemented to establish vegetation on disturbed exposed soil which will not be a part of the waste disposal area or which will remain exposed for more than three (3) months.

(s) Information Posted: signs shall be posted at the entrance to landfills indicating the days and hours of operation.

(t) Prohibited Acts: the landfill shall be operated and maintained to prevent open burning, scavenging, and the open dumping of wastes.

(u) Recordkeeping Requirements.

1. Not later than October 1, 1993, the owner or operator of a MSWLF unit must record and retain near the facility in an operating record or in an alternative location approved by the Director the following information as it becomes available:

- a. Any location restriction demonstration required under Rule 391-3-4-.05;
- b. Inspection records, training procedures, and notification procedures required in subparagraph (c) of this Rule;
- c. Gas monitoring results from monitoring and any remediation plans required by paragraph (h) of this section;
- d. Any MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit as required under paragraph (9) of Rule 391-3-4-.04;
- e. Any demonstration, certification, finding, monitoring, testing, or analytical data required by Rule 391-3-4-.14;
- f. Closure and post-closure care plans and any monitoring, testing, or analytical data as required by Rule 391-3-4-.11 and Rule 391-3-4-.12; and
- g. Any cost estimates and financial assurance documentation required by Rule 391-3-4-.13.

2. The owner/operator must notify the Director when the documents from paragraph 1. of this section have been placed or added to the operating record, and all information contained in the operating record must be furnished on request to the Director or be made available at all reasonable times for inspection by the Director.

3. The Director can set alternative schedules for recordkeeping and notification requirements as specified in paragraphs 1. and 2. of this section, except for the notification requirements in Rule 391-3-4-.05(1) (c), Airport Safety, and Rule 391-3-4-.14(30) (a) 3, Assessment Monitoring.

(v) Ground and Surface Water Monitoring: all water monitoring points shall be sampled in accordance with the approved plans or with any directive issues by the Division. Analytical results must be submitted to the Division in accordance with the approved time schedules. It shall be the responsibility of the facility owner or operator to promptly report any exceedance of established standards. All monitoring reports must be accompanied by a statement certifying, for those constituents which have established standards, that established standards have been complied with or certifying noncompliance.

(w) Survey Control: survey control shall be provided by the owner and/or operator as indicated on the approved design and operational plan. Site survey control shall be provided to ensure the operation will be on permitted lands. Survey control will be accomplished through use of permanent, accessible benchmarks, survey control stakes, and/or boundary markers which designate and/or delineate all permitted areas. Where necessary for construction or operational purposes, vertical as well as horizontal survey control will be established and maintained to delineate fill boundaries, buffers, structural designs, and property boundaries.

(x) Additional Stipulations: notwithstanding the above, additional stipulations for owning or operating a landfill may be imposed by the Director as deemed necessary to carry out the purposes of O.C.G.A. 12-8-20, etseq.

(4) Other Disposal Operations.

(a) Industrial Waste Disposal Facilities: industrial waste disposal facilities permitted to receive only a single type industrial waste (monofil) or receive only a single industry's waste may be given a variance by the Director from installing liners and leachate collection systems, applying daily cover, installing ground water and surface water monitoring systems and monitoring for methane gas if the applicant can demonstrate to the satisfaction of the Director that the waste to be disposed of would not cause odors or be attractive to disease vectors or birds or generate methane gas. Unless a variance is granted, the applicant must demonstrate compliance with all applicable provisions of this Rule. Disposal facilities accepting wastes from more than one industrial source, unless the facility is a monofil, must meet all standards applicable to municipal solid waste landfills in Chapter 391-3-4. CCR Units are exempt from the requirements of this Rule and must meet requirements in Rule 391-3-4-.10.

(b) Construction/Demolition Facilities: disposal facilities permitted to receive only construction and demolition wastes, unless such waste includes household waste, may be given a variance by the Director from installing liners and leachate collection systems and applying daily cover if the applicant can demonstrate to the satisfaction of the Director that the waste to be disposed of would not cause odors or be attractive to disease vectors or birds. Unless a variance is granted, the applicant must demonstrate compliance with all applicable provisions of this Rule. All other provisions of Chapter 391-3-4 applicable to municipal solid waste landfills must be met.

(c) Inert Waste Landfill Facilities: disposal facilities are permitted to receive only waste that will not or is not likely to produce leachate of environmental concern. Only earth and earth-like products, concrete, cured asphalt, rock, bricks, yard trimmings, and land clearing debris such as stumps, limbs and leaves, are acceptable for disposal in an inert waste landfill. Inert waste landfill facilities must be designed by a professional engineer registered to practice in Georgia to comply with the following standards:

1. Buffers: No portion of waste disposal area shall be located within one hundred (100) linear feet of any property line or enclosed structure.

2. Survey Control: site survey control shall be provided to ensure the operation will be on permitted lands. Survey control will be accomplished through use of permanent, accessible benchmarks, survey control stakes, and/or boundary markers which designate and/or delineate all permitted areas. Survey control shall be as indicated on the design and operational plan. Where necessary for construction or operational purposes, vertical as well as horizontal survey control will be established and maintained to delineate fill boundaries, buffers, and property boundaries.

3. Siting: waste shall not be located in wetlands or floodplains, and waste shall not be placed within five feet of the permanent water table. A demonstration must be included in the design and operational plan on how these requirements will be met.

4. Explosive Gases Control: the plan must implement a routine methane monitoring program to ensure that the concentration of methane gas generated by the facility does not exceed 25 percent of the lower explosive limit for methane for on-site enclosed structures and does not exceed the lower explosive limit for methane at the facility property boundary. The type of monitoring must be determined based on the following factors: soil conditions; the hydrogeologic conditions surrounding the facility; the hydraulic conditions surrounding the facility; and the location of facility structures and property boundaries. The minimum frequency of monitoring must be quarterly. If methane gas levels exceeding the limits specified in this section are detected, the owner or operator must: immediately take all necessary steps to ensure protection of human health and notify the Director; within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the Director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy. If a facility can demonstrate that no organic component of the inert waste stream has been accepted or will be accepted in the future, a variance from the explosive gases control requirements may be requested for review with the application for inert waste landfill permit request.

5. Sequence of Filling: the plan must define a sequence of filling showing a detailed progression of filling the entire site that minimizes any problems with drainage and all weather access roads to the working face.

6. Spreading/Compaction/Monthly Cover: materials placed in inert waste landfills shall be spread in layers and compacted to the least practical volume; and, a uniform compacted layer of clean earth cover no less than one (1) foot in depth shall be placed over all exposed inert waste material at least monthly.

7. Erosion and Sedimentation Control: all surface runoff from disturbed areas must be controlled by use of appropriate erosion and sedimentation control measures or devices. Best management practices (BMPs) from the Manual for Erosion and Sediment Control in Georgia should be utilized.

8. Vegetation: the plan must call for the vegetation of any disturbed area that will remain exposed for more than three (3) months. Vegetation of final cover must take place within two (2) weeks after final cover placement.

9. Fire Protection: suitable means shall be provided to prevent and control fires. Stockpiled soil is considered to be the most satisfactory fire fighting material. A minimum of one month of cover material must be maintained within 200 feet of the working face for fire fighting purpose, unless other acceptable means have been provided and approved by the Director.

10. Limited Access: access to inert waste landfills shall be limited to authorized entrances which shall be closed when the site is not in operation.

11. Final Grading: the inert waste landfill site shall be graded and drained to minimize runoff onto the landfill surface, to prevent erosion and to drain water from the surface of the landfill. The grade of the final surface of the facility may not be less than 3 percent nor greater than 33 percent.

12. Final Cover: a uniform compacted layer of final cover not less than two (2) feet in depth and a vegetative cover shall be placed over the final lift not later than one month following final placement of inert waste within that lift.

13. Final Closure: notice of final closure must be provided to the Director within 30 days of receiving the final load of waste. Any site not receiving waste for in excess of 180 days shall be deemed abandoned and in violation of these Rules unless properly closed. Notice of closure must include the date of final waste receipt and an accurate legal description of the boundaries of the landfill.

14. Deed Notice: all deeds for real property which have been used for landfilling shall include notice of the landfill operations, the date the landfill operation commenced and terminated, an accurate legal description of the actual location of the landfill, and a description of the type of solid wastes which have been deposited in the landfill. Concurrent with the submission of notice of final closure to the Director, the owner or operator must submit to the Director confirmation that the information required in this section has been noticed on the property deed.

15. Reporting: all wastes received at the landfill must be measured and reported as required by Rule 391-3-4-.17.

16. Post-Closure Care: the design must provide for post-closure care for a minimum of thirty (30) years. If a demonstration can be made that the site is no longer producing methane, the post closure care period may be reduced, but in no circumstance shall it be reduced to less than 5 years.

17. Financial Responsibility: the design must provide for financial responsibility in accordance with Rule 391-3-4-.13.

18. Other Laws: compliance with all other applicable federal, state, and local laws, rules, and ordinances, including local zoning, land use ordinances, and any applicable federal wetlands permits, must be demonstrated in the application for solid waste handling.

(d) Construction and operation of a solid waste handling facility for which specific rules have not been developed is prohibited unless same are consistent with the policies and intent of O.C.G.A. 12-8-20, et.seq., and are permitted by the Director.

(5) CCR Management Plan. Owners or operators of MSWLs and Commercial Industrial Landfills must incorporate a CCR management plan into the facility's Design and Operational Plan before the initial receipt of CCR. MSWLs and Commercial Industrial Landfills that accepted CCR before the effective date of the Rule and will continue to accept CCR after the effective date must incorporate a CCR management plan into the facility's Design and Operational Plan by minor modification 180 days from the effective date of the Rule. The owner or operator shall notify the local governing authorities of any city and county in which the landfill is located upon the submittal of the CCR Management Plan by EPD.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.07

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Effective Date," was filed as 391-1-1-.07 on November 21, 1972; effective December 12, 1972, as specified by the Agency.

Amended: Rule renumbered as 391-3-4-.07. Filed September 6, 1973; effective September 26, 1973.

Amended: Rule repealed and a new Rule entitled "Disposal Operations" adopted. Filed September 19, 1974; effective October 9, 1974.

Amended: Rule entitled "Disposal Design and Operation" adopted. F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule entitled "Landfill Design and Operation" adopted. F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Jul. 31, 1997; eff. Aug. 20, 1997.

Amended: F. Feb. 5, 2013; eff. Feb. 25, 2013.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.08 Solid Waste Thermal Treatment Operations

(1) Except as otherwise noted in (2) below, any person engaged in thermal treatment technology of solid waste, in addition to the requirements of O.C.G.A. 12-8-24(i) relating to Federal New Source Performance Standards, shall comply with the following requirements:

(a) Design Criteria: a design and operational plan prepared as a part of the permit application must be prepared by a professional engineer registered in Georgia and must include, but is not limited to, the following criteria:

1. Capacity: the thermal treatment technology facility shall be adequate in size and capacity to manage the projected incoming solid waste and residue volumes.
2. Storage Time: the facility shall provide for a minimum storage capacity of not less than three (3) times the daily capacity of the thermal treatment technology equipment. No waste shall be stored in excess of the permitted capacity.
3. Types of Waste: the application must include the sources, types and weight or volumes of solid waste to be processed, including data on the moisture content of the waste, and information concerning special environmental pollution or handling problems that may be created by the solid waste.
4. Residue Analysis: the facility shall be designed in such a manner as to provide for such devices to expedite the routine sampling of bottom and fly ash.
5. Air Quality: the facility shall be designed in such manner as to meet any air quality standards of the Division.
6. Wastewater: the facility shall be designed so that any wastewater generated will be discharged to a wastewater system and, before final release, will be treated in a manner approved by the Division.
7. Fire Protection: facility design shall provide for fire control equipment placed near the storage and charging area, and elsewhere as needed, and additional fire fighting equipment shall be made available for emergencies.
8. Residue Acceptability: the facility shall provide for sufficient temperature and combustion times to produce a residue essentially free of odors and unstable organic matter.

(b) Construction Certification: upon receipt of a final and effective solid waste handling permit, construction may commence in accordance with the approved design and operational plan and permit conditions. Prior to the receipt of solid waste, the Division must be provided with written certification, by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division within 15 days of receipt by the Division of the written certification, the facility owner or operator may commence disposal of solid waste.

(c) All persons owning or operating thermal treatment technology facilities shall comply with the following performance requirements:

1. Supervision: operation and management of thermal treatment technology facilities shall be under the direct supervision and control of an operator who is present at all times of operation and is qualified in thermal treatment technology management by training, education or experience and who, after July 1, 1992, is certified in accordance with O.C.G.A. 12-8-24.1 and these Rules.

2. Residue: temperature and combustion time shall be sufficient to produce a satisfactory residue, essentially free of odors and unstable organic matter, and such residue shall be promptly deposited in a municipal solid waste landfill having a liner and leachate collection system and operated and maintained as provided herein, handled in such other manner as may be approved by the Division, or if shown by testing to be hazardous, handled in accordance with the provisions of the Georgia Hazardous Waste Management Act, O.C.G.A. 12-8-60, et seq.

3. Waste Water: waste water shall be discharged into a waste water treatment system and, before final release, shall be treated in a manner approved by the Division.

4. Information Posted: signs shall be posted at the entrance to the plant indicating the days and hours of operation. Access to the plant shall be limited to those times when authorized personnel are on duty.

5. Cleanliness and Sanitation: plants shall be maintained in a clean and sanitary condition. Solid waste shall be confined to the unloading area, which shall be maintained free of dust and nuisances. Accumulations of putrescible materials and rubbish shall be controlled in a manner so as to minimize odors and prevent infestation by insects or rodents, and insect and rodent control measures shall be applied as needed. Sanitary facilities shall be provided for employees and shall be kept clean and in good repair.

6. Fire Control: fire control equipment shall be available near the storage area and charging area, and elsewhere as needed, and additional fire fighting equipment shall be made available for emergencies.

7. Sampling requirements: sampling of ash residues must be conducted at frequencies and in such a manner as prescribed below:

(i) Prior to the initial disposal of ash or residue from a facility.

(ii) At a minimum, monthly for the first six (6) months of operations at the facility, and annually during the remaining life of the facility.

(iii) A sampling and analysis plan shall be submitted to, and approved by, the Director.

(iv) Fly ash and bottom ash shall be sampled and analyzed separately.

8. Prohibited Waste: no lead acid batteries, radioactive waste, or regulated quantities of hazardous waste may be accepted. The operator must have a plan for excluding these wastes.

9. Record Keeping: accurate written, daily records by actual weight or by the methods approved in accordance with O.C.G.A. 12-8-31.1(g) shall be kept of all waste received at the thermal treatment facility. Copies of such records shall be maintained for a period of at least three (3) years and shall be made available to the Division upon request.

10. Additional Stipulations: notwithstanding the above, additional stipulations for owning or operating a thermal treatment facility may be imposed by the Director as deemed necessary to carry out the purposes of O.C.G.A. 12-8-20, et seq.

(2) Any person engaged in the operation of an Air Curtain Destructor (ACD) shall comply with the following requirements: for purposes of these Rules, an "Air Curtain Destructor" means a forced air pit thermal treatment technology for the burning of wood wastes.

(a) Design Criteria: a design and operational plan prepared as a part of the permit application must be prepared by a professional engineer registered in Georgia and must include, but is not limited to, the following criteria:

1. Location: the ACD must be at least 500 feet from any occupied dwelling. The distance may increased or decreased on a site-specific basis at the discretion of the Division.
2. Storage: areas for storing wastes prior to treatment must be clearly defined and maximum capacity specified.
3. Types of Wastes: only wood wastes consisting of trees, logs, brush, stumps relatively free of soil, and natural wood products free of wood preserving chemicals, paints, and other contaminants may be burned. Fallen leaves, sawdust, other densely packed wood wastes, and paper (any type) may not be burned.
4. Air Quality: the facility shall be designed in such a manner as to meet applicable air quality standards of the Division. No smoke emissions exceeding 20 percent opacity may be produced during operation except for a specified ignition period.
5. Disposal of Ash and Residue: ash and residue shall be removed from the facility, handled as a recovered material or and disposed in a permitted facility.
6. Fire Protection: facility design shall provide for fire control equipment placed near the storage and ACD area. Additional fire fighting equipment shall be made available for emergencies.

(b) Construction Certification: upon receipt of a final and effective solid waste handling permit, construction may commence in accordance with the approved design and operational plan and permit conditions. Prior to the receipt of solid waste, the Division must be provided with written certification, by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division within 15 days of receipt by the Division of the written certification, the facility owner or operator may commence disposal of solid waste.

(c) All persons owning or operating an air curtain destructor shall comply with the following performance requirements:

1. Supervision: operation and management of air curtain destructors shall be under the direct supervision and control of an operator who is present at all times of operation and is qualified in air curtain distracter management by training, education or experience and who, after July 1, 1992, is certified in accordance with O.C.G.A. 12-8-24.1 and these Rules.
2. Residue: temperature and combustion time shall be sufficient to produce a satisfactory residue, and such residue shall be promptly deposited in a landfill operated and maintained as provided herein or handled in such other manner as may be allowed by these Rules. Ashes may not be allowed to build up on the combustion pit to higher than one-third the pit depth to the point where combustion is impeded, whichever comes first.
3. Access: facility access shall be restricted to prohibit unauthorized storage or disposal of wastes and to prevent injury during ACD operation.
4. Inspection and Maintenance: the ACD and all operating appurtenances must be routinely inspected and adequately maintained to ensure proper working order. Storage areas must be inspected and maintained to exclude unauthorized wastes and minimize any fire hazard.

(d) Effective April 1, 1993, no ACD may burn any household waste or yard trimmings.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.08

Authority: Ga. L. 1972, p. 1002, as amended; O.C.G.A. Secs. 12-8-20, et seq., 12-8-23.

History. Original Rule was filed on September 19, 1974; effective October 9, 1974.

Amended: Rule retitled "Incineration and Pyrolysis Operations." F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Solid Waste Thermal Treatment Operations." F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Oct. 7, 1993; eff. Oct. 27, 1993.

Original Rule was filed on September 19, 1974; effective October 9, 1974.

Amended: Rule retitled "Incineration and Pyrolysis Operations." F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Solid Waste Thermal Treatment Operations." F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Oct. 7, 1993; eff. Oct. 27, 1993.

Rule 391-3-4-.09 Shredding, Baling, Materials Recovery Facilities and Other Processing Operations

(1) Any person engaged in shredding, baling, or the recovery of materials from solid waste shall comply with the following requirements:

(a) Design Standards: a design and operational plan prepared by a professional engineer registered to practice in Georgia and proposed as a part of the permit application must include, but is not limited to, the following standards:

1. Capacity. The facility shall be adequate in size and capacity to manage the projected incoming solid waste and residue volumes.
2. Baling Equipment. The equipment must be capable of producing a relatively uniform bale size and shape which can be easily handled by equipment at the baling facility. The bales must have sufficient stability to withstand transportation to the disposal site and handling necessary to position them for final disposal.
3. Storage Time. The facility shall provide for a minimum storage capacity of not less than three (3) times the daily capacity of the shredding, baling, or materials recovery equipment. No waste shall be stored in excess of the permitted capacity.
4. Types of Waste. The application must include the sources, types, and weight of solid waste to be processed, and information concerning special environmental pollution or handling problems that may be created by the solid waste.
5. Air Quality. The facility shall be designed in such a manner as to meet any air quality standards of the Division.
6. Wastewater. Any wastewater generated by the facility shall be discharged to a wastewater treatment system and, before final release, shall be treated in a manner approved by the Division.
7. Fire Protection. Facility design shall provide for fire control equipment placed near the storage area and elsewhere as needed, and additional fire fighting equipment shall be made available for emergencies.
8. Disposal of Waste. Shredded and baled waste and any material not sold or used, reused, or recycled as recovered material must be disposed in a permitted facility.

(b) Construction Certification: upon receipt of a final and effective solid waste handling permit, construction may commence in accordance with the approved design and operational plan and permit conditions. Prior to receipt of solid waste, the Division must be provided with written certification, by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division within 15 days of receipt by the Division of the written certification, the facility owner or operator may commence processing of solid waste.

(c) Performance Standards. All persons owning or operating shredding, baling or materials recovery facilities shall comply with the following requirements:

1. Supervision. Operation and management of the facility shall be under the supervision and control of a responsible individual properly trained in the operation of such facilities at all times during operation.

2. Shredding Plant Residue: The shredded material shall be deposited in a municipal solid waste landfill or handled in such a manner as may be approved by the Division.
3. Bales. The baling operation shall be controlled to produce a uniform bale size and shape which can be easily handled by equipment at the baling facility and at the disposal facility. The bales must have sufficient stability to withstand transportation to the disposal facility and handling necessary to position them for final disposal. Baled solid waste shall be deposited in a municipal solid waste landfill or handled in such other manner as may be approved by the Division.
4. Wastewater. Wastewater shall be discharged to a wastewater treatment system and, before final release, shall be treated in a manner approved by the Division.
5. Air Quality. Atmospheric emissions shall be controlled so as not to exceed air quality standards of the Division.
6. Information Posted. Signs shall be posted at the entrance to the plant indicating the days and hours of operation. Access to the plant shall be limited to those times when authorized personnel are on duty.
7. Cleanliness and Sanitation. Facilities shall be maintained in a clean and sanitary condition. Solid waste shall be confined to the unloading area, which shall be maintained free of dust and nuisances. Accumulations of putrescible materials and rubbish shall be controlled in a manner so as to minimize odors and prevent infestation by insects or rodents, and insect and rodent control measures shall be applied as needed. Sanitary facilities shall be provided for employees and shall be kept clean and in good repair.

(2) Construction and operation of solid waste processing facilities for which specific rule have not been developed are prohibited unless same are consistent with the policies and intent of O.C.G.A. 12-8-20, et seq., and are permitted by the Director.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.09

Authority: Ga. L. 1972, p. 1002, as amended; O.C.G.A. Secs. 12-8-20 et seq., 12-8-23.

History. Original Rule was filed on September 19, 1974; effective October 9, 1974.

Repealed: New Rule entitled "Shredding, Baling, Composting and Other Processing Operations" adopted. F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Shredding, Baling, Materials Recovery Facilities and Other Processing Operations". F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Original Rule was filed on September 19, 1974; effective October 9, 1974.

Repealed: New Rule entitled "Shredding, Baling, Composting and Other Processing Operations" adopted. F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Shredding, Baling, Materials Recovery Facilities and Other Processing Operations". F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Rule 391-3-4-.10 Coal Combustion Residuals

(1) Applicability.

(a) This Rule applies to the following:

1. Owners and operators of new and existing landfills and surface impoundments, including any lateral expansions of such units that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. Unless otherwise provided in this Rule, these requirements also apply to disposal units located off-site of the electric utility or independent power producer.
2. All CCR units.
3. Any practice that does not meet the definition of a beneficial use of CCR.

(b) This Rule does not apply to the following:

1. Wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals.
2. Fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.
3. CCR placement at active or abandoned underground or surface coal mines.
4. Municipal Solid Waste Landfills and Commercial Industrial Landfills that receive CCR.

(c) Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments 40 CFR 257.60 through 257.107, effective on October 19, 2015 are hereby incorporated and adopted by reference with the following exception:

1. 40 CFR 257.104 Paragraph (a)(3) is excluded.

(d) Any reference to 40 C.F.R. Parts in any provisions adopted by reference shall be construed to refer to the provisions contained in the following sections of these Rules:

Federal Regulation Reference	Georgia Rule Reference
40 C.F.R. Part 257.53	391-3-4-.10(2)
40 C.F.R. Parts 257.60 - 257.64	391-3-4-.10(3)
40 C.F.R. Parts 257.70 - 257.74	391-3-4-.10(4)
40 C.F.R. Parts 257.80 - 257.84	391-3-4-.10(5)
40 C.F.R. Parts 257.90 - 257.98	391-3-4-.10(6)
40 C.F.R. Parts 257.100 - 257.104	391-3-4-.10(7)
40 C.F.R. Parts 257.105 - 107	391-3-4-.10(8)

(2) Definitions.

(a) Definitions in 40 CFR 257.53 are incorporated by reference into this section and are applicable to CCR units with the following additions and revision:

1. "Dewatered Surface Impoundment" means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and does not contain liquids on or after October 19, 2015.
2. "NPDES -CCR Surface Impoundment" means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 which still contains both CCR and liquids and is located at an electric utility or independent power producer that has ceased producing electricity prior to October 19, 2015.
3. "Inactive CCR Landfill" means a CCR landfill that no longer receives CCR and other wastes on or after October 19, 2015.
4. The following text shall be substituted for the fourth condition in the definition of Beneficial use of CCR "(4) For unencapsulated use of CCR, the user must demonstrate to the Division and provide documentation to the Division that environmental releases to groundwater, surface water, soil, and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil, and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use."

(3) Location Restrictions.

- (a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must meet the location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, and 40 CFR 257.63.
- (b) Existing or new CCR landfills, existing or new CCR surface impoundments, or lateral expansions of a CCR unit must meet the location restrictions in 40 CFR 257.64.
- (c) For new and lateral expansions of CCR units, the hydrogeological evaluation for a specific site must be performed by a qualified groundwater scientist.
- (d) For new and lateral expansions of CCR units, when the geological and hydrogeological data so indicate, the Division may specify greater separation distances to protect groundwater.
- (e) Buffers: New CCR units and lateral expansions of CCR units must provide a 200- foot undisturbed buffer between the waste disposal boundary and the boundary of the permitted facility and a minimum 500-foot buffer between the waste disposal boundary and any occupied dwelling and the dwelling's operational private, domestic water supply well in existence on the date of the permit application. The 500-foot buffer may be reduced if the current owner of the dwelling provides a written waiver consenting to the waste disposal boundary being closer than 500 feet. No disposal or storage practices for waste shall take place in the buffer zones.

(4) Design Criteria.

- (a) New CCR landfills and lateral expansions of CCR landfills shall be designed in accordance with 40 CFR 257.70.
- (b) Existing CCR surface impoundments shall comply with liner design criteria in 40 CFR 257.71 and the structural integrity criteria in 40 CFR 247.73.
- (c) New CCR surface impoundments and lateral expansions of CCR surface impoundments shall be designed and comply with requirements in 40 CFR 257.72 and 40 CFR 257.74.

(5) Operating Criteria.

(a) CCR landfills shall be operated in accordance with the criteria in 40 CFR 257.80, 40 CFR 257.81, and 40 CFR 257.84.

(b) CCR surface impoundments shall be operated in accordance with the criteria in 40 CFR 257.80, 40 CFR 257.82, and 40 CFR 257.83.

(c) The operation and use of the CCR unit shall be as stipulated in the solid waste handling permit.

(6) Groundwater Monitoring and Corrective Action.

(a) CCR units are subject to the groundwater monitoring and corrective action requirements in 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98.

(b) When referenced in this Rule, Appendix III and Appendix IV constituents shall refer to those constituents as listed in Appendix III and IV of 40 CFR Part 257, Subpart D, 80 FR 21468, (Apr. 17, 2015), which are hereby incorporated by reference.

(c) The owner or operator of a CCR unit must submit a semi-annual report to the Division to coincide with the semi-annual sampling event. A qualified groundwater scientist must certify the report.

(d) The Division must provide concurrence with the following actions in order for them to be complete:

1. Groundwater monitoring system design
2. Groundwater sampling and analysis plan
3. Groundwater monitoring well installation
4. Alternate source demonstration
5. Selection of remedy
6. Completion of remedy

(e) The Director may require the analysis of additional parameters based on waste descriptions.

(f) An owner or operator of a CCR unit shall continue to monitor for Appendix I or II constituents if these constituents have previously been detected at statistically significant levels above background concentrations.

(g) Monitoring wells require replacement after two dry sampling events, unless an alternate schedule has been approved by the Division. A minor modification shall be submitted in accordance with subparagraph (4)(b)7 of Rule 391-3-4-.02 prior to the installation or decommissioning of monitoring wells. Well installation must be directed by a qualified groundwater scientist.

(7) Closure and Post-Closure Care.

(a) Inactive surface impoundments are subject to the requirements in 40 CFR 257.100.

1. The following additional requirements apply to inactive surface impoundments that complete closure requirements in 40 CFR 257.100(b)(1) through (b)(4) no later than April 17, 2018:

(i) Permitting requirements in Rule 391-3-4-.10(9)

(ii) Groundwater monitoring and corrective action requirements in Rule 391-3-4-.10(6)

2. CCR surface impoundments that complete closure through removal of CCR and meet all of the requirements of 40 CFR 257.100(b)(5) no later than April 17, 2018 are subject only to the requirements in subparagraph (9)(c)6(v)(I) of Rule 391-3-4-.10.

(b) Closure or retrofit of existing, new, and lateral expansions of CCR units shall be conducted in accordance with 40 CFR 257.101, 40 CFR 257.102, and 40 CFR 257.103.

(c) The owner or operator must close the CCR unit in accordance with the written closure plan.

(d) A notice of intent to close must be provided to the Director after receipt of the final load of waste.

(e) Upon completion of closure activities, a professional engineer registered in Georgia shall prepare and submit a closure report to the Director. The closure report must be completed on forms provided by the Division. If the Director concurs with the closure report, closure will be deemed complete and the facility may begin the post-closure care period.

(f) Concurrent with the submission of this closure report to the Director, the owner or operator must submit confirmation to the Director that a notation on the property deed has been recorded. This recording must in perpetuity notify any potential purchaser of the property that the land has been used as a CCR unit and that its use is restricted under the post closure care requirements of this Rule.

(g) Post-Closure care for existing, new, and lateral expansions of CCR units shall be conducted in accordance with 40 CFR 257.104 with the following exception and additions:

1. An owner or operator of an inactive surface impoundment that elects to close a CCR unit pursuant to the requirements under 40 CFR 257.100(b) is subject to the post- closure care criteria in 40 CFR 257.104.
2. CCR units must comply with the conditions of the solid waste handling permit.
3. The release of CCR units from post-closure care must be approved by the Division.

(8) Recordkeeping, Notification, and Posting of Information to the Internet.

(a) The requirements of 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107 are incorporated by reference with the following addition:

1. Electronic mail sent to a designated EPD recipient is an authorized form of notification when approved by EPD.

(9) Permits.

(a) CCR Permit Applications: After the effective date of this Rule, owners and operators of all CCR units are required to submit to the director a permit application that meets the requirements of this Rule. Separate permits are required for each CCR unit.

1. Owners and operators of new CCR units are required to submit to the director a complete permit application prior to the initial receipt of CCR.
2. Owners and operators of all CCR units shall submit a complete permit application no later than two years from the effective date of the Rule.
3. Owners and operators of CCR units with existing solid waste handling permits on the effective date of the Rule must submit an application for Major Modification.

(b) All CCR unit permit applications must include the following:

1. A completed form designated by EPD.
2. Written verification that the site conforms to all local zoning or land use ordinances.
3. Property boundary survey and legal description.
4. Financial assurance mechanism meeting the criteria in Rule 391-3-4-.13.
5. A qualified professional engineer's certification that all application requirements have been met.

(c) Additional permit application requirements for CCR Units by Facility Type:

1. New CCR landfills or lateral expansion of CCR landfills

- (i) Technical data and report to comply with location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.
- (ii) Siting report that meets the criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14, Appendix A. The report shall be prepared by a qualified groundwater scientist.
- (iii) Plan and profile sheets of the disposal area. The plan and profile sheets shall include topographical maps at contour intervals of not more than five feet for the existing ground surface elevations, initial disposal area elevations, final disposal area elevations, and buffers.
- (iv) Design of a liner and leachate collection system as required by 40 CFR 257.70.
- (v) Quality assurance/quality control (QA/QC) plan for the construction of the liner system, leachate collection system, and the final cover system.
- (vi) An operation plan that includes at a minimum:
 - (I) A fugitive dust plan in compliance with 40 CFR 257.80.
 - (II) A run-on and run-off control plan in compliance with 40 CFR 257.81.
 - (III) Inspection requirements in compliance with 40 CFR 257.84.
 - (IV) Identification of any uniquely associated wastes as listed in 40 CFR 261.4(b)(4), the estimated quantities generated by the facility, and a description of how these wastes will be managed.
 - (V) Procedures for compliance with recordkeeping, notification, and posting of information to the internet as required by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.
 - (VI) Procedures for updating all plans and assessments periodically as required by 40 CFR Part 257.
- (vii) A groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).
- (viii) A closure and post-closure plan in accordance with Rule 391-3-4.10(7).
- (ix) Any additional information that may be required by the Division.

2. New Surface Impoundments or lateral expansions of surface impoundments

- (i) Technical data and report to comply with location restrictions in 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.
- (ii) Siting report that meets the criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14, Appendix A. The report shall be prepared by a qualified groundwater scientist.
- (iii) Technical report for the hazardous potential classifications as outlined in 40 CFR 257.74 and the emergency action plan if required by 40 CFR 257.74.
- (iv) For a new CCR surface impoundment that has a height of five feet or more and a storage volume of 20 acre-feet or more, or a surface impoundment with a height of 20 feet or more, the application shall include the following:
 - (I) Design and construction plan requirements in 40 CFR 257.74.
 - (II) Structural stability assessment as required by 40 CFR 257.74.
 - (III) Safety factor assessment as required by 40 CFR 257.74.
- (v) Design of a liner system as required by 40 CFR 257.72.
- (vi) Quality assurance/quality control (QA/QC) plan for the construction of the liner system, leachate collection system, and the final cover system.
- (vii) An operation plan that includes at a minimum:
 - (I) A fugitive dust plan in compliance with 40 CFR 257.80.
 - (II) An inflow design flood control system in compliance with 40 CFR 257.82.
 - (III) Inspection requirements in compliance with 40 CFR 257.83.
 - (IV) Identification of any uniquely associated wastes as listed in 40 CFR 261.4(b)(4), the estimated quantities generated by the facility, and a description of how these wastes will be managed.
 - (V) Procedures for compliance with recordkeeping, notification, and posting of information to the internet as required by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.
 - (VI) Procedures for updating all plans and assessments periodically as required by 40 CFR Part 257.
- (viii) A groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).
- (ix) A closure and post-closure plan in accordance with Rule 391-3-4-.10(7).
- (x) Any additional information that may be required by the Division.

3. Existing CCR landfills

- (i) Location restriction demonstration requirements in 40 CFR 257.64.

(ii) Description of how the CCR landfill's operating criteria requirements in 40 CFR 257.80, 40 CFR 257.81, and 40 CFR 257.84 are met.

(iii) Groundwater monitoring plan in accordance with 391-3-4-.10(6). Explanation of how groundwater monitoring and corrective action criteria requirements in 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98 are met.

(iv) Explanation of how closure and post-closure care requirements in 40 CFR 257.101, 40 CFR 257.102, 40 CFR 257.103, and 40 CFR 257.104 will be met.

(v) Website address for information required to be posted by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.

4. Inactive CCR landfills must meet requirements subparagraphs (9)(c)3.(i) - (iv) of this Rule for an existing CCR landfill.

5. Existing Surface Impoundments

(i) Location restriction demonstrations required by 40 CFR 257.60, 40 CFR 257.61, 40 CFR 257.62, 40 CFR 257.63, and 40 CFR 257.64.

(ii) Description of the CCR surface impoundment's design criteria required by 40 CFR 257.71 and 40 CFR 257.73.

(iii) Description of how the CCR surface impoundment's operating criteria required by 40 CFR 257.80, 40 CFR 257.82, and 40 CFR 257.83 are met.

(iv) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6). Explanation of how groundwater monitoring and corrective action criteria required by 40 CFR 257.90, 40 CFR 257.91, 40 CFR 257.93, 40 CFR 257.94, 40 CFR 257.95, 40 CFR 257.96, 40 CFR 257.97, and 40 CFR 257.98 are met.

(v) Explanation of how closure and post-closure care requirements found in 40 CFR 257.101, 40 CFR 257.102, 40 CFR 257.103, and 40 CFR 257.104 will be met.

(vi) Website address for information required to be posted by 40 CFR 257.105, 40 CFR 257.106, and 40 CFR 257.107.

6. Inactive Surface Impoundments. An owner or operator of an inactive surface impoundment shall complete closure of the CCR unit as specified in 40 CFR 257.100 no later than April 17, 2018 or submit a permit application for an existing CCR surface impoundment, including:

(i) Technical data and report showing compliance with 40 CFR 257.100.

(ii) Technical report of geological and hydrogeological units within the disposal site.

(iii) Potentiometric surface map of the water table.

(iv) Siting report which includes identification of wetlands, floodplains, and seismic impact zones.

(v) Written closure plan that includes at a minimum:

(I) Narrative describing how the CCR unit will be closed including the elimination of free liquids and stabilization of remaining waste or by closure through removal of CCR.

(II) Identification of any pipes, utilities, or other penetrations through or beneath the impoundment. The inspection frequency and method of evaluation should be provided.

(III) Final cover analysis.

(vi) Stability analysis that, at a minimum, includes the following:

(I) On-site or local soil conditions that may result in significant differential settling.

(II) On-site or local geologic or geomorphologic features.

(III) On-site or local human-made features or events, both surface and subsurface.

(vii) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(viii) Closure through removal of CCR is subject only to (v)(I) above and is not subject to the financial assurance requirements of Rule 391-3-4-.13.

7. NPDES - CCR Surface Impoundments

(i) Technical report of geological and hydrogeological units within the disposal site.

(ii) Potentiometric surface map of the water table.

(iii) Siting report which includes identification of wetlands, floodplains, and seismic impact zones.

(iv) Closure plan that includes at a minimum:

(I) Narrative describing how the CCR unit will be closed including the elimination of free liquids and stabilization of remaining waste or by closure through removal of CCR.

(II) Identification of any pipes, utilities, or other penetrations through or beneath the impoundment. The inspection frequency and method of evaluation should be provided.

(III) Final cover analysis.

(v) Stability analysis that at a minimum includes the following:

(I) On-site or local soil conditions that may result in significant differential settling.

(II) On-site or local geologic or geomorphologic features.

(III) On-site or local human-made features or events, both surface and subsurface.

(vi) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(vii) Closure through removal of CCR is subject only to (iv)(I) above and is not subject to the financial assurance requirements of Rule 391-3-4-.13.

8. Dewatered Surface Impoundments

- (i) Demonstration that closure procedures have minimized the threat to human health and the environment.
- (ii) Stability analysis.
- (iii) Final cover analysis.
- (iv) Groundwater monitoring plan in accordance with Rule 391-3-4-.10(6).

(10) Financial Assurance.

- (a) All CCR units must meet requirements in Rule 391-3-4-.13.

(11) Variances.

- (a) A compliance schedule variance for CCR units not meeting the minimum criteria may be considered upon the following:

- 1. A demonstration that no alternative units meeting the minimum requirement either on- site or off-site can be used to dispose of the CCR or non-CCR wastewater;
- 2. A demonstration that the owner or operator is unable to use other public or private alternatives to manage the waste in the non-compliant unit; and
- 3. The schedule of compliance must specify remedial measures and an enforceable sequence of actions or operations leading to compliance within a reasonable time not to exceed time frames as specified in 40 CFR 257.102.

- (b) Other variances may be granted under Rule 391-3-4-10 which are not less stringent than those found in 40 CFR 257.60 through 257.107, effective on October 19, 2015.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.10

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule was filed on September 19, 1974; effective October 9, 1974.

Repealed: New Rule entitled "Special Solid Waste" adopted. F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Repealed: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Adopted: New rule entitled "Coal Combustion Residuals." F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.11 Closure Criteria

(1) 40 CFR Part 258, Subpart F, Section 258.60, as amended, 56 Fed. Reg. 51028-51029 (October 9, 1991) is hereby incorporated by reference, except that it shall be effective upon adoption by the Board and filing with the Secretary of State and except as described below.

(2) This Rule shall be applicable to all solid waste handling facilities.

(3) A copy of the closure plan required by paragraph (1) of this Rule must be submitted as part of the application for a permit, or in the case of existing sites, within 180 days of being directed to do so by the Director, provided, however, that all owners or operators of existing municipal solid waste landfills must submit a plan not later than October 1, 1993.

(4) Notice of final closure must be provided to the Director within 30 days of receiving the final load of waste. Any site not receiving waste for in excess of 180 days, unless otherwise approved by the Division, shall be deemed closed and in violation of these Rules unless properly closed. Notice of closure must include the date of final waste receipt and an accurate legal description of the boundaries of the landfill.

(5) All deeds for real property which have been used for landfilling shall include notice of the landfill operations, the date the landfill operation commenced and terminated, an accurate legal description of the actual location of the landfill, and a description of the type of solid wastes which have been deposited in the landfill. Concurrent with the submission of notice of final closure to the Director, the owner or operation must submit to the Director confirmation that the information required in this section has been noticed on the property deed.

(6) The owner or operator must close the solid waste disposal facility in accordance with a closure plan approved by the Division. Upon completing all requirements specified to close the facility outlined in the closure plan, the owner or operator must provide the Division with a certification signed by a registered professional engineer, registered in the state of Georgia, to verify that compliance with the closure requirements have been satisfied.

(7) The closure certification as provided in paragraph (6) of this Rule must be completed on forms provided by the Division. If certification is accepted by the Division, the Director will issue the Closure Certificate and establish the beginning of the post-closure care period.

(8) Owners and operators of CCR units are exempt from this Rule and must meet the closure requirements in Rule 391-3-4-.10.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.11

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Closure Criteria" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.12 Post-Closure Care

(1) 40 CFR Part 258, Subpart F, Section 258.61, as amended, 56 Fed. Reg. 51028-51029 (October 9, 1991) is hereby incorporated by reference, except that it shall be effective upon adoption by the Board and filing with the Secretary of State and except as described below:

(2) The owner and/or operator of all landfills must conduct post-closure care for at least thirty (30) years after the Director has authorized the Closure Certificate, provided however, that the Director may reduce the post-closure care period to 5 years for those facilities which are not contaminating groundwater and which cease to accept solid waste prior to being classified as an "existing MSWLF or landfill unit", as defined in Rule .01. The Director may extend the post-closure care period where necessary to adequately protect human health and the environment.

(3) The owner and/or operator shall be responsible for conducting all monitoring activities. At any time the monitoring results indicate exceeding of established standards or indicate a threat to human health or the environment, the owner and/or operator shall notify the Division within 5 days of such determination and shall provide a plan for remediation within 30 days of such notice. The plan shall be submitted to the Director for approval. Unless notified otherwise by the Division within 30 days of receipt of a complete plan, the plan shall stand approved. Upon approval, the owner and/or operator shall implement the approved plan.

(4) Post-closure use of property must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the monitoring systems, unless the Division determines that the activities are necessary to meet the requirements of this Chapter.

(5) If the owner and/or operator or any subsequent owner or operator of the land upon which a landfill is located wishes to remove wastes and waste residues, the liner, if any, or contaminated soils, the owner or operator must request and receive written approval from the Division.

(6) A copy of the post-closure care plan required under paragraph (1) of this Rule must be submitted as part of the permit application, or in the case of existing sites, within 180 days of being directed to do so by the Director, provided, however, that all owners or operators of existing municipal solid waste landfills must submit an approvable post-closure plan not later than October 1, 1993.

(7) Owners and operators of CCR units are exempt from this Rule and must meet the post-closure requirements in Rule 391-3-4-.10.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.12

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Post-Closure Care" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. F. Jun. 27, 1993.

Amended: F. Oct. 7, 1993; eff. Oct. 27, 1993.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.13 Financial Responsibility

(1) Applicability. The requirements of this Rule apply to all owners and/or operators of solid waste processing, treatment, storage or disposal facilities other than permit-by-Rule facilities, except for the exemptions provided for in (3) below.

(2) 40 CFR Part 258, Subpart G as amended, 56 Fed. Reg. 5102951032 (October 9, 1991) and 61 Fed. Reg. 60327-60339 (November 27, 1996) is hereby incorporated by reference.

(3) Exemptions. Local government owner and operators of MSWLs that were taking more than 100 tons per day that ceased receipt of waste by October 8, 1993 and local government owner and operators of MSWLFs that were taking less than 100 tons per day that ceased receipt of waste by April 8, 1994 are exempt from this Rule.

(4) Forms. Allowable financial mechanisms for closure, post-closure care, and corrective action (i.e., trust fund, surety bond, letter of credit, insurance, financial test, or guarantee) shall be submitted on forms as provided or in a format as prescribed by the Director.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.13

Authority: O.C.G.A. Secs. 12-8-20et seq., 12-8-23.

History. Original Rule entitled "Financial Responsibility," was F Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Jul. 31, 1997; eff Aug. 20, 1997.

Original Rule entitled "Financial Responsibility," was F Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Jul. 31, 1997; eff Aug. 20, 1997.

Rule 391-3-4-.14 Groundwater Monitoring and Corrective Action

(1) Applicability. All permits and modifications of permits for MSWLF units issued after the effective date of this Rule require the installation of a groundwater monitoring system. All existing MSWLF units not now having a groundwater monitoring system, and failing to make the demonstration required in section (2) shall incorporate a groundwater monitoring system into the site design and shall install the system within 270 days of being notified to do so by the Division, provided, however, that such systems must be installed not later than October 1, 1994. Such groundwater monitoring and, if needed, corrective action shall be conducted in accordance with this Rule. Industrial solid waste landfills and construction/demolition waste landfills must also meet the requirements of this Rule unless otherwise exempted by the Division. CCR units must meet requirements in paragraph (6) of Rule 391-3-4-.10.

(2) Groundwater monitoring requirements under paragraphs (8) through (50) of this Rule may be suspended by the Director for a MSWLF unit if the owner or operator can demonstrate that there is no potential for migration of hazardous constituents from that MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care period. This demonstration must be certified by a professional geologist registered to practice in Georgia or a professional geotechnical engineer registered to practice in Georgia and the demonstration approved by the Director, and must be based upon:

- (a) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport, and
- (b) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and the environment.

(3) New MSWLF units must be in compliance with the groundwater monitoring requirements specified in this Rule before waste may be placed in the unit.

(4) When referenced in this Rule, Appendix I and Appendix II constituents shall refer to those constituents as listed in Appendix I and II of 40 CFR Part 258, Subpart E, as amended, 56 Fed. Reg. 51032-51039 (October 9, 1991), which are hereby incorporated by reference.

(5) When referenced in this Rule, Appendix III and Appendix IV constituents shall refer to those constituents as listed in Appendix III and IV of 40 CFR Part 257, Subpart D, 80 FR21468, (April 17, 2015), which are hereby incorporated by reference.

(6) Once established at a MSWLF unit, groundwater monitoring shall be conducted throughout the active life and post-closure care period of that MSWLF unit as specified in Rule 391-3-4-.12.

(7) The Director may approve alternative schedules for demonstrating compliance with paragraph (11)(b) pertaining to notification of placement of certification in operating record; paragraph (23)(a) pertaining to notification that statistically significant increase (SSI) notice is in operating record; paragraph (23)(b) and (c), pertaining to an assessment monitoring program; paragraph (25), pertaining to sampling and analyzing Appendix II constituents; paragraph (27)(a) pertaining to placement of notice (Appendix II constituents detected) in record and notification of notice in record; paragraph (27)(b) pertaining to sampling of Appendix I and II to this Rule; paragraph (30) pertaining to notification (and placement of notice in record) of SSI above groundwater protection standard; paragraphs (30)(a) and (34) pertaining to assessment of corrective measures; paragraph (38) pertaining to selection of remedy and notification of placement in paragraph record; paragraph (46)(d) pertaining to notification of placement in record (alternative corrective action measures); and paragraph (49) pertaining to notification of placement in record (certification of remedy completed).

(8) Groundwater Monitoring Systems. A groundwater monitoring system must be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the upper most aquifer that:

(a) Represent the quality of background groundwater that has not been affected by leakage from a unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

1. Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or
2. Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells; and

(b) Represent the quality of groundwater passing the relevant point of compliance specified by the Director under Rule 391-3-4-.07. The downgradient monitoring system must be installed at the relevant point of compliance specified by the Director under this Rule. When physical obstacles preclude installation of groundwater monitoring wells at the relevant point of compliance at existing units, the downgradient monitoring system may be installed at the closest practicable distance hydraulically downgradient from the relevant point of compliance specified by the Director under Rule 391-3-4-.07 that ensures detection of groundwater contamination in the uppermost aquifer.

(9) The Director may approve a multi-unit groundwater monitoring system instead of separate groundwater monitoring systems for each MSWLF unit when the facility has several units, provided the multi-unit groundwater monitoring system meets the requirement of paragraph (8) of this Rule and will be as protective of human health and the environment as individual monitoring systems for each MSWLF unit, based on the following factors:

- (a) Number, spacing, and orientation of their MSWLF units;
- (b) Subsurface and Surface Hydrogeologic setting;
- (c) Site history;
- (d) Engineering design of the MSWLF units, and
- (e) Type of waste accepted at the MSWLF units.

(10) Monitoring wells must be cased in manner that maintains the integrity of the monitoring well borehole and prevents interaquifer migration of fluids. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the borehole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

(a) The owner or operator must notify the Director that the design, installation, development and decommission of any monitoring wells, piezometers and other measurement, sampling, and analytical devices documentation has been placed in the operating record; and

(b) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program. Monitoring wells and piezometers shall be constructed by drillers having a valid and current bond with the Water Wells Standards Advisory Council. Monitoring wells require replacement after two dry sampling events, unless an alternate schedule has been approved by the Division.

(11) The number, spacing, and depths of monitoring systems shall be:

(a) Determined based upon site-specific technical information that must include thorough characterization of :

1. Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and
2. Saturated and unsaturated geologic units and fill materials over lying the upper most aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the upper most aquifer; including, but not limited to: thickness, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

(b) Certified by a qualified groundwater scientist. Within 14 days of this certification, the owner or operator must notify the Director that the certification has been placed in the operating record.

(12) Groundwater Sampling and Analysis Requirements. The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells installed in compliance with paragraph (8) of this Rule. The owner or operator must notify the Director that the sampling and analysis program documentation has been placed in the operating record and the program must include procedures and techniques for:

- (a) Sample collection;
- (b) Sample preservation and shipment;
- (c) Analytical procedures;
- (d) Chain of custody control; and
- (e) Quality assurance and quality control.

(13) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Groundwater samples are not normally field-filtered prior to laboratory analysis. If samples are filtered, then both filtered and unfiltered samples shall be collected and submitted to the laboratory for analysis.

(14) The sampling procedures and frequency must be protective of human health and the environment.

(15) Groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled. The owner or operator must determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells which monitor the same waste management area must be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determinations of groundwater flow rate and direction.

(16) The owner or operator must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the monitoring parameters or constituents required in the particular groundwater monitoring program that applies to the MSWLF unit, as determined under paragraph (21) or (24) of this Rule. Background groundwater quality may be established at wells are not located hydraulically upgradient from the MSWLF unit if it meets the requirements of paragraph (8)(a) of this Rule.

(17) The number of samples collected to establish groundwater quality data must be consistent with the appropriate statistical procedures determined pursuant to paragraph (18) of this Rule. The sampling procedures shall be those specified in paragraph (22) for detection monitoring, paragraphs (24) and (27) for assessment monitoring, and paragraph (35) for corrective action.

(18) The owner or operator must specify in the operating record one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each hazardous constituent in each well.

(a) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(b) An analysis of variance (ANOVA) based on the ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(c) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(d) A control chart approach that gives control limits for each constituent.

(e) Another statistical method that meets the requirements of Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance (EPA-530-R-09-007 March 2009).

(19) Any statistical method chosen under paragraph (18) of this Rule shall comply with the following performance standards, as appropriate:

(a) The statistical method used evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(b) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(c) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(d) If a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(e) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably

achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(f) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(20) The owner or operator must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the MSWLF unit, as determined in paragraphs (21) or (24) of this Rule.

(a) In determining whether a statistically significant increase has occurred, the owner or operator must compare the groundwater quality of each parameter or constituent at each monitoring well designated pursuant to subparagraph (8)(b) of this Rule to the background value of that constituent, according to the statistical procedures and performance standards specified under paragraphs (18) and (19) of this Rule.

(b) Within a reasonable period of time after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background at each monitoring well.

(21) Detection Monitoring. Detection monitoring is required at MSWLF units at all groundwater monitoring wells defined in subparagraphs (8)(a) and (b) of this Rule. At a minimum, a detection monitoring program must include the monitoring for the constituents listed in Appendix I of this Rule.

(a) The Director may delete any of the Appendix I monitoring parameters for a MSWLF unit if it can be shown that the removed constituents are not reasonably expected to be contained in or delivered from the waste contained in the unit.

(b) The Director may establish an alternative list of inorganic indicator for a MSWLF unit, in lieu of some or all of the heavy metals (constituents 1-15 in Appendix I to this Rule), if the alternative parameters provide a reliable indication of inorganic releases from the MSWLF unit to the groundwater. In determining alternative parameters, the Director shall consider the following factors:

1. The types, quantities, and concentrations of constituents in wastes managed at the MSWLF unit;
2. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the MSWLF unit;
3. The detectability of indicator parameters, waste constituents, and reaction products in the groundwater; and
4. The concentration or values and coefficients of variation of monitoring parameters or constituents in the groundwater background.

(c) After the effective date of the Rule, owners and operators of MSWLFs and Commercial Industrial Landfills must add Appendix III to their detection monitoring parameters before the initial receipt of CCR. MSWLFs and Commercial Industrial Landfills that accepted CCR before the effective date of the Rule must incorporate the Appendix III constituents into their monitoring plan by minor modification within 180 days from the effective date of the Rule.

(d) The Director will not delete parameters or establish alternate parameter lists discussed under subparagraphs (21)(a) and (b) for those facilities accepting CCR wastes.

(e) The Director may require additional parameters based on waste descriptions.

(22) The monitoring frequency for all constituents listed in Appendix I to this Rule, or in the alternative list approved in accordance with subparagraph (21)(b) of this Rule, shall be at least semiannual during the active life of the facility (including closure) and the post-closure care period. A minimum of four independent samples from each well (background and downgradient) must be collected and analyzed for the Appendix I constituents, or the alternative list approved in accordance with subparagraph (21)(b) of this Rule, during the first semiannual sampling event. At least one sample from each well (background and downgradient) must be collected and analyzed during subsequent semiannual sampling events. The Director may specify an appropriate alternative frequency for repeated sampling and analysis for Appendix I constituents, or the alternative list approved in accordance with subparagraph (21)(b) of this Rule, during the active life (including closure) and the post-closure care period. The alternative frequency during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the following factors:

- (a) Lithology of the aquifer and unsaturated zone;
- (b) Hydraulic conductivity of the aquifer and unsaturated zone;
- (c) Groundwater flow rates;
- (d) Minimum distance between upgradient edge of the MSWLF unit and downgradient monitoring well screen (minimum distance of travel); and
- (e) Resource value of the aquifer.

(23) If the owner or operator determines, pursuant to paragraph (18) of this Rule, that there is statistically significant increase over background for one or more of the constituents listed in Appendix I to this Rule, or in the alternative list approved in accordance with subparagraph (21)(b) of this Rule, at any monitoring well at the boundary specified under subparagraph (8)(b) of this Rule, the owner or operator:

- (a) Must, within 14 days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels, and notify the Director that this notice was placed in the operating record; and
- (b) Must establish an assessment monitoring program meeting the requirements of paragraphs (20) through (33) of this Rule within 90 days except as provided for in subparagraph (23)(c) of this Rule.
- (c) The owner/operator may demonstrate that a source other than a MSWLF unit caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist or approved by the Director and be placed in the operating record. If a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in paragraphs (22) and (23) of this Rule. If, after 90 days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring program as required in paragraphs (24) through (33) of this Rule.

(24) Assessment Monitoring Program. Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in Appendix I or in the alternative list approved in accordance with subparagraph (21)(b) of this Rule.

(25) Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator must sample and analyze the groundwater for all constituents identified in Appendix II of this Rule. A minimum of one sample from each downgradient well must be collected and analyzed during each sampling event. For any constituent detected in the downgradient wells as the result of the complete Appendix II analysis, a minimum of four independent samples from each well (background and downgradient) must be collected and analyzed to establish background for the new constituents. The Director may specify an appropriate subset of

wells to be sampled and analyzed for Appendix II constituents during assessment monitoring. The Director may delete any of the Appendix II monitoring parameters for a MSWLF unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit. Owners and operators of MSWLFs and Commercial Industrial Landfills that will accept CCR after the effective date of the Rule must include Appendix IV in the assessment monitoring parameters before the initial receipt of CCR. MSWLFs and Commercial Industrial Landfills that accepted CCR before the effective date of the Rule and with known releases must incorporate Appendix IV constituents into their monitoring plans by minor modification within 180 days from the effective date of the Rule.

(26) The Director may specify an appropriate alternate frequency *f* or repeated sampling and analysis for the full set of Appendix II constituents required by paragraph (25) of this Rule, during the active life (including closure) and post-closure care of the unit considering the following factors:

- (a) Lithology of the aquifer and unsaturated zone;
- (b) Hydraulic conductivity of the aquifer and unsaturated zone;
- (c) Groundwater flow rates;
- (d) Minimum distance between upgradient edge of the MSWLF unit and downgradient monitoring well screen (minimum distance of travel);
- (e) Resource value of the aquifer; and
- (f) Nature (fate and transport) of any constituents detected in the response to this Rule.

(27) After obtaining the results from the initial or subsequent sampling events required in paragraph (25) of this Rule, the owner or operator must:

- (a) Within 14 days, place a notice in the operating record identifying the Appendix II constituents that have been detected and notify the Director that this notice has been placed in the operating record;
- (b) Within 90 days, and on at least a semiannual basis thereafter, resample all wells specified by paragraph (8) of this Rule, conduct analyses for all constituents in Appendix I to this Rule or in the alternative list approved in accordance with subparagraph (21)(b) of this Rule and for those constituents in Appendix II to this Rule that are detected in response to paragraph (25) of this Rule, and record their concentrations in the facility operating record. At least one sample from each well (background and downgradient) must be collected and analyzed during these sampling events. The Director may specify an alternative monitoring frequency during the active life (including closure) and the post-closure care period for the constituents referred to in this paragraph. The alternative frequency for Appendix I constituents, or the alternative list approved in accordance with subparagraph (21)(b) of this Rule during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified in paragraph (26) of this Rule;
- (c) Establish background concentrations for any constituents detected pursuant to paragraph (25) or subparagraph (27)(b) of this Rule; and
- (d) Establish groundwater protection standards for all constituents detected pursuant to paragraph (25) or (27) of this Rule. The groundwater protection standards shall be established in accordance with paragraph (31) or (32) of this Rule.

(28) If the concentrations of all Appendix II constituents are shown to be at or below background values, using the statistical procedures in paragraph (18) of this Rule, for two consecutive sampling events, the owner or operator must notify the Director of this finding and may return to detection monitoring.

(29) If the concentrations of any Appendix II constituents are above background values, but all concentrations are below the groundwater protection standard established under paragraphs (31) or (32) of this Rule, using the statistical procedures in paragraph (18) of this Rule, the owner or operator must continue assessment monitoring in accordance with this section.

(30) If one or more Appendix II constituents are detected at statistically significant levels above the groundwater protection standard established under paragraph (31) or (32) of this Rule in any event, the owner or operator must, within 14 days of this finding, place a notice in the operating record identifying the Appendix II constituents have exceeded the groundwater protection standard and notify the Director and all appropriate local government officials that the notice has been placed in the operating record. The owner or operator also:

- (a) Must characterize the nature and extent of the release by installing additional monitoring wells as necessary;

- (b) If the point of compliance is not at the facility boundary, the owner/operator must install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with subparagraph (27)(b) of this Rule.

- (c) Must notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with subparagraph (30)(a) of this Rule; and

- (d) Must initiate an assessment of corrective measures as required by paragraphs (34) through (37) of this Rule within 90 days; or

- (e) May demonstrate that a source other than a MSWLF unit caused the contamination, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist or approved by the Director and placed in the operating record. If a successful demonstration is made the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to paragraphs (24) through (33) of this Rule and may return to detection monitoring if the Appendix II constituents are at or below background as specified in paragraph (28) of this Rule. Until a successful demonstration is made, the owner or operator must comply with subparagraph (30)(a) and (e), including initiating an assessment of corrective measures.

(31) The owner or operator must establish a groundwater protection standard for each Appendix II constituent detected in the groundwater. The groundwater protection standard shall be:

- (a) For constituents for which a maximum contaminant level (MCL) has been promulgated under section 1412 of the Safe Drinking Water Act (codified) under 40 CFR part 141, the MCL for that constituent;

- (b) For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with subparagraph (8)(a) of this Rule; or

- (c) For constituents for which the background level is higher than the MCL identified under subparagraph (31)(a) of this Rule or health based levels identified under subparagraph (32)(a) of this Rule, the background concentration.

(32) The Director may establish an alternative groundwater protection standard for constituents for which MCLs have not been established. These groundwater protection standards shall be appropriate health based levels that satisfy the following criteria:

(a) The level is derived in a manner consistent with applicable state and federal guidelines for assessing the health risks of environmental pollutants (51 Fed. Reg. 33992, 34006, 34014, 34028; September 24, 1986).

(b) The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR part 792) or equivalent;

(c) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1×10^{-4} to 1×10^{-6} range; and

(d) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this paragraph, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(33) In establishing groundwater protection standards under paragraph (32) of this Rule, the Director may consider the following:

(a) Multiple contaminants in the groundwater;

(b) Exposure threats to sensitive environmental receptors; and

(c) Other site-specific exposure or potential exposure to groundwater.

(34) Assessment of Corrective Measures. Within 90 days of finding that any of the constituents listed in Appendix II have been detected at a statistically significant level exceeding the groundwater protection standards defined in paragraph (31) or (32) of this Rule, the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time.

(35) The owner or operator must continue to monitor in accordance with the assessment monitoring program as specified in paragraphs (24) through (33) of this Rule.

(36) The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described in paragraphs (38) through (43) of this Rule addressing at least the following:

(a) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross media impacts, and control of exposure to any residual contamination;

(b) The time required to begin and complete the remedy;

(c) The cost of remedy implementation; and

(d) Other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(e) Local, state or federal permit requirements.

(37) The owner or operator must discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

(38) Selection of Remedy. Based on the results of the corrective measures assessment conducted under paragraphs (34) through (37) of this Rule, the owner or operator must select a remedy that, at a minimum, meets the standards listed in paragraph (39) of this Rule. The owner or operator must notify the Director, within 14 days

of selecting a remedy, that a report describing the selected remedy has been placed in the operating record and how it meets the standards in paragraph (39) of this Rule.

(39) Remedies must:

- (a) Be protective of human health and the environment;
- (b) Attain the groundwater protection standard as specified pursuant to paragraph (31) or (32) of this Rule.
- (c) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix II constituents into the environment that may pose a threat to human health or the environment; and
- (d) Comply with standards for management of wastes as specified in paragraph (47) of this Rule.

(40) In selecting a remedy that meets the standards of paragraph (31) of this Rule, the owner or operator s hall consider the following evaluation factors:

(a) The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

1. Magnitude of reduction of existing risks;
2. Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;
3. The type and degree of long-term management required, including monitoring, operation, and maintenance;
4. Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redispisal or containment;
5. Time until full protection is achieved;
6. Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redispisal, or containment;
7. Long-term reliability of the engineering and institutional controls; and
8. Potential need for replacement of the remedy.

(b) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors;

1. The extent to which containment practices will reduce further releases;
2. The extent to which treatment technologies may be used.

(c) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

1. Degree of difficulty associated with construction the technology;

2. Expected operational reliability of the technologies;
3. Need to coordinate with and obtain necessary approvals and permits from other agencies;
4. Availability of necessary equipment and specialists; and
5. Available capacity and location of needed treatment, storage, and disposal services.

(d) Practicable capability of the owner or operator, including a consideration of the technical and economic capability.

(e) The degree to which community concerns are addressed by a potential remedy(s).

(41) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in subparagraphs (41)(a) through(h) of this Rule. The owner or operator must consider the following factors in determining the schedule or remedial activities.

(a) Extent and nature of contamination;

(b) Practical capabilities of remedial technologies in achieving compliance with groundwater protection standards established in paragraph (31) or (32) of this Rule and other objectives of the remedy;

(c) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

(d) Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives.

(e) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

(f) Resource value of the aquifer including:

1. Current and future uses;
2. Proximity and withdrawal rate of users;
3. Groundwater quantity and quality;
4. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
5. The hydrologic characteristic of the facility and surrounding land;
6. Groundwater removal and treatment costs; and
7. The cost and availability of alternative water supplies.

(g) Practicable capability of the owner or operator.

(h) Other relevant factors.

(42) The Director may determine that remediation of a release of an Appendix II constituent from a MSWLF unit is not necessary if the owner or operator demonstrates to the satisfaction of the Director that:

(a) The groundwater is additionally contaminated by substances that have originated from a source other than a MSWLF unit and those substances are present in concentrations such that cleanup of the release from the MSWLF unit would provide no significant reduction in risk to actual or potential receptors; or

(b) The constituent(s) is present in groundwater that:

1. Is not currently or reasonably expected to be a source of drinking water; and
2. Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under paragraph (31) or (32) of this Rule; or

(c) Remediation of the release(s) is technically impracticable; or

(d) Remediation results in unacceptable cross-media impacts.

(43) A determination by the Director pursuant to paragraph (42) of this Rule shall not affect the authority of the state to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human or the environment.

(44) Implementation of the Corrective Action Program. Based on the schedule established under paragraph (41) of this Rule for initiation and completion of remedial activities, the owner or operator must:

(a) Establish and implement a corrective action groundwater monitoring program that;

1. At a minimum, meets the requirements of an assessment monitoring program under paragraphs (24) through (33) of this Rule;
2. Indicates the effectiveness of the corrective action remedy; and
3. Demonstrates compliance with groundwater protection standard pursuant to paragraph (48) of this Rule.

(b) Implement the corrective action remedy selected under paragraphs (38) through (43) of this Rule; and

(c) Take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to paragraphs (28) through (43) of this Rule. The following factors must be considered by an owner or operator in determining whether interim measures are necessary.

1. Time required to develop and implement a final remedy;
2. Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
3. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
4. Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
5. Weather conditions that may cause hazardous constituents to migrate or be released;

6. Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

7. Other situations that may pose threats to human health and the environment.

(45) An owner or operator may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements paragraph (31) of this Rule are not being achieved through the remedy selected. In such cases, the owner or operator must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination under paragraph (46) of this Rule.

(46) If the owner or operator determines that compliance with requirements under paragraph (31) of this Rule cannot be practically achieved with any currently available methods, the owner or operator must:

(a) Obtain certification of a qualified groundwater scientist or approval by the Director that compliance with requirements under paragraph (31) of this Rule cannot be practically achieved with any currently available methods;

(b) Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(c) Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

1. Technically practicable; and

2. Consistent with the overall objective of the remedy.

(d) Notify the Director within 14 days that a report justifying the alternative measures prior to implementing the alternative measures has been placed in the operating record.

(47) All solid wastes that are managed pursuant to a remedy required in paragraphs (38) through (43) of this Rule, or an interim measure required in paragraph (44)(c) of this Rule, shall be managed in a manner:

(a) That is protective of human health and the environment; and

(b) That complies with applicable state Solid and Hazardous Waste Management Rules and federal Solid and Hazardous Waste Management Rules.

(48) Remedies selected pursuant to paragraphs (38) through (43) of this Rule shall be considered complete when:

(a) The owner or operator complies with the groundwater protection standards established under paragraph (31) or (32) of this Rule at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under paragraph (8) of this Rule.

(b) Compliance with the groundwater protection standards established in paragraph (30) or (31) of this Rule has been achieved by demonstrating that concentrations of Appendix II constituents have not exceeded the groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in paragraphs (18) and (19) of this Rule. The Director may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of Appendix II constituents have not exceeded the groundwater protection standard(s) taking into consideration:

1. Extent and concentration of the release(s);

2. Behavior characteristics of the hazardous constituents in the groundwater;
3. Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and
4. Characteristics of the groundwater.

(c) All actions required to complete the remedy have been satisfied.

(49) Upon completion of the remedy, the owner or operator must notify the Director within 14 days that a certification that the remedy has been completed in compliance with the requirements of paragraph (48) of this Rule has been placed in the operating record. The certification must be signed by the owner or operator and by a professional geologist, geotechnical or professional engineer registered to practice in Georgia and approved by the Director.

(50) When upon completion of the certification, the owner or operator determines that the corrective action remedy has been completed in accordance with the requirements in paragraph (48) of this Rule, the owner or operator shall be released from the requirements for financial assurance for corrective action under Rule 391-3-4-.13.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.14

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

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Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.15 Biomedical Waste

(1) All persons subject to regulation under Rule .15 shall, in addition to the requirements of Rule .15, handle biomedical waste in accordance with the provisions of O.C.G.A. 12-8-20, et seq., and the Rules for Solid Waste Management, Chapter 391-3-4 applicable to solid waste.

(2) Biomedical waste shall mean and include the following:

- (a) Pathological waste, which means all recognizable human tissues and body parts except teeth which are removed during surgery, obstetrical procedures, autopsy, and laboratory procedures.
- (b) Biological waste, which means blood and blood products, exudates secretions, suctionings, and other body fluids which contains free liquids and cannot be or are not directly discarded into a municipal sewer system.
- (c) Cultures and stocks of infectious agents and associated biologicals including cultures from medical and pathological laboratories, cultures and stocks of infectious agents from research and industrial laboratories, wastes from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures.
- (d) Contaminated animal carcasses, body parts, their bedding, and other wastes from such animals which are infected with or which have been exposed to infectious agents, capable of causing disease in man.
- (e) Sharps, which means any discarded article that may cause punctures or cuts. Such waste includes, but is not limited to, items such as needles, IV tubing and syringes with needles attached, and scalpel blades.
- (f) Chemotherapy waste, which means any disposable material which has come in contact with cytotoxic/antineoplastic agents (agents toxic to cells) and/or antineoplastic agents (agents that inhibit or prevent the growth and spread of tumors or malignant cells) during the preparation, handling, and administration of such agents. Such waste includes, but is not limited to, masks, gloves, gowns, empty IV tubing bags and vials, and other contaminated materials. The above waste must first be classified as empty which means such quantity that it is not subject to other federal or state waste management regulations prior to being handled as biomedical waste.
- (g) Discarded medical equipment and parts, excluding expendable supplies and materials included in paragraphs (a) through (f) of this Rule, which have not been decontaminated, and that were in contact with infectious agents.

(3) Generation of Biomedical Waste.

- (a) Unless otherwise exempted, Rule 391-3-4-.15 shall apply to all persons generating or handling biomedical waste, including but not limited to: ambulatory service centers, blood banks, clinics, county health departments, dental offices, funeral homes, health maintenance organizations (HMOs), hospitals, laboratories, medical buildings, physicians offices, veterinary offices, research and manufacturing facilities, nursing homes, and biomedical waste transportation, storage, treatment, and disposal facilities.
- (b) Partial exemption: facilities which generate less than 100 pounds per month of biomedical waste shall be exempt from all provisions of Rule 391-3-4-.15 except that they shall comply fully with the provisions of Rule 391-3-4-.15(4)(a), (4)(b), (4)(b) 1., (4)(b)2., (4)(c), (6)(c), and (7)(b). For purposes of this Rule, a facility is defined as one or more persons generating biomedical waste who share common waste management services including, but not limited to, bulk storage containers.
- (c) Total exemption: in no case shall a person be generator of biomedical waste if those wastes are generated from single-family residential premises or a single-family dwelling unit in the self-care and

treatment of family members living in those premises or units and disposed of as residential solid waste. Home health care organizations or physicians treating patients in a home are not exempt unless otherwise exempted in (b) above.

(d) All requirements of this Rule shall apply to persons or facilities who generate 100 pounds or more biomedical waste per month.

(4) Storage and Containment of Biomedical Waste.

(a) Containment of biomedical waste shall be a manner and location which affords protection from animals, rain and wind, does not provide a breeding place or a food source for insects and rodents, and minimizes exposure to the public.

(b) Biomedical waste shall be segregated by separate containment from other waste at the point of origin.

1. Biomedical waste, except for sharps, shall be placed in containers which are impervious to moisture and have a strength sufficient to preclude ripping, tearing, or bursting under normal conditions of use. The containers shall be securely closed so as to prevent leakage or expulsion of solid or liquid wastes during storage, handling, or transport.
2. Sharps shall be contained for storage, transportation, treatment and subsequent disposal in leakproof, rigid, puncture-resistant containers which are taped closed or tightly lidded to preclude loss of contents.

(c) Rigid containers of discarded sharps and all other disposable containers used for containment of biological waste shall be red or orange in color or clearly identified with the universal biohazard symbol or clearly marked with the word "Biohazard".

(d) Biomedical waste contained in disposable containers as prescribed above, shall be placed for storage, handling, or transport in disposable or reusable pails, cartons, boxes, drums, dumpsters, or portable bins. The containment system shall have a tight fitting cover and be kept clean and in good repair. The containers may be of any color and shall be conspicuously labeled with the universal biohazard symbol and the word "Biohazard" on the sides so as to be readily visible from any lateral direction when the container is upright.

1. Reusable containers used for shipment of biomedical waste shall be thoroughly washed and decontaminated each time they are emptied.
2. Reusable pails, drums, dumpsters or bins used for containment of biomedical waste shall not be used for other purposes except after being decontaminated by procedures as described in (4)(d)1. above and after the universal biohazard symbol and word "Biohazard" are removed.

(5) Transfer of Biomedical Waste to Off-Site Treatment or Disposal Facilities.

(a) Any generator of biomedical waste shall transfer custody of the waste only to a collector who is operating under authority of these Rules.

(b) Biomedical waste shall not be transported in the same vehicle with other solid waste unless the biomedical waste is contained in a separate, fully enclosed leakproof container within the vehicle compartment or unless all of the waste is to be treated as biomedical waste in accordance with the requirements of these Rules.

(c) Biomedical waste shall be delivered for storage, including intermediate transfer, and treatment only to a facility or location for which there is a valid and appropriate operating permit as set forth in these Rules.

(d) Surfaces of transport vehicles that have contacted spilled or leaked biomedical waste shall be decontaminated.

(e) Equipment used to transport waste from the generator to the off-site treatment or disposal facility may not destroy the integrity of the container.

(f) Vehicles used for the transport of biomedical waste shall not be used for transportation of food or food products.

(6) Treatment of Biomedical Waste.

(a) If treated in accordance with the following procedures, the waste shall no longer be considered biomedical waste and may be combined and handled with regular solid waste. Biomedical waste shall be treated by one of the following methods prior to disposal at a permitted waste disposal facility.

1. Incineration in the thermal treatment technology facility which provides complete combustion of waste to render it nonpathogenic.

(i) Biomedical waste thermal treatment technology facilities shall be capable of maintaining a minimum temperature in the primary chamber sufficient to destroy infectious agents and procedure a residue essentially free of odors and unstable organic matter. If chemotherapy wastes are incinerated, the facility must be capable of maintaining a minimum of 1,800 degrees Fahrenheit in the secondary combustion chamber and a minimum residence time of two seconds.

(ii) Atmospheric emissions shall be controlled so as not to exceed air quality standards of the Division.

2. Decontamination by heating with steam under pressure (autoclave) so as to render the biomedical waste noninfectious.

(i) A recording thermometer shall be used during each complete cycle to ensure the attainment of a temperature of 121 degrees Centigrade (250 degrees Fahrenheit) for one-half hour or longer in order to achieve decontamination of the entire load.

(ii) Monitoring of the steam sterilization process shall be required in order to confirm the attainment of decontamination.

(iii) Monitoring may be through the use of biological indicators or other methods as approved by the Director. Indicators used to ensure the attainment of the proper temperature during steam sterilization shall be placed at the point of the load where the rate of thermal penetration is at a minimum.

3. Other methods as may be approved by the Director.

(b) Fluid or semisolid waste specified in (2)(b) of this Rule may be discharged to a sewage treatment system that provides secondary treatment of waste if approved by the agency responsible for the operation of the sewage treatment system.

(c) Biomedical wastes consisting of recognizable human anatomical remains shall not be disposed of by landfilling.

(d) Chemotherapy waste, as defined in (2)(f), shall be treated at a permitted thermal treatment technology facility or other facility approved by the Director. Steam decontamination may not be used for the treatment of chemotherapy waste.

(e) All facilities treating regulated quantities of biomedical waste must, at a minimum, comply with the above criteria. Commercial biomedical waste treatment facilities may not construct or operate a biomedical waste treatment facility without first obtaining a solid waste handling permit under these Rules. On-site biomedical waste treatment facilities are required to obtain a solid waste permit-by-Rule, and must comply with the provisions of paragraph (6)(a)-(d) of this Rule, in addition to Rule 391-3-4-.06. For purposes of this Rule, "Commercial biomedical waste treatment facility" means a facility which accepts over 25 percent of its biomedical waste from other, off-site, facilities, which are not owned by the facility owning the treatment or disposal facility, generally for a fee.

(7) Disposal of Biomedical Waste.

(a) Biomedical wastes treated in accordance with the provisions in Rule 391-3-4-.15(6), shall be properly disposed of at a facility permitted under the authority of these Rules unless otherwise approved by the Director.

(b) Biomedical waste from generators of less than 100 pounds per month shall be properly disposed of at a municipal solid waste landfill or treatment facility permitted under authority of these Rules or other facilities approved by the Director.

(c) The disposal of untreated biomedical waste, from generators of more than 100 pounds per month, by landfilling is prohibited.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.15

Authority: O.C.G.A. Secs. 12-8-20et seq., 12-8-23.

History. Original Rule entitled "Biomedical Waste" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

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Rule 391-3-4-.16 Composting, Mulching and Anaerobic Digestion Facilities

(1) Composting is a desirable means of reducing the amount of solid waste destined for disposal. All composting facilities not exempted in 391-3-4-.16 (3) shall either be regulated under Permit-by-Rule in 391-3-4-.16 (5)(b) or shall obtain a Solid Waste Handling Permit in accordance with either 391-3-4-.16 (5)(c), 391-3-4-.16(5)(d), 391-3-4-.16 (5)(e), or 391-3-4-.16 (5)(f) depending on the technology employed and feedstocks processed.

(a) Composting facilities in existence on the effective date of this Rule may continue to operate until March 31, 2015 under their existing permit, or Permit-by-Rule, before demonstrating compliance under conditions (i) - (vii) of this section. Existing facilities requesting major modifications after the effective date of this Rule must fully comply with this Rule. Facilities that cannot demonstrate compliance with conditions (i) - (vii) of this section by March 31, 2015 shall initiate closure.

(i) Existing Permit-by-Rule composting facilities that meet the criteria of 391-3-4-.16 (5)(b) 1. must comply with the operating standards of Class 2 Composting Facilities, but are exempted from the design standards of Class 2 Composting Facilities.

(ii) Existing permitted composting facilities that classify as Class 3 Composting Facilities in 391-3-4-.16 (5)(c) 1. and 2. must comply with the operating standards of Class 3 facilities, but are exempted from the design standards of Class 3 facilities.

(iii) Existing permitted composting facilities that classify as Class 4 Composting Facilities in 391-3-4-.16 (5)(d) 1. and 2. must comply with the operating standards of Class 3 and Class 4 facilities, but are exempted from the design standards of Class 3 and Class 4 facilities.

(iv) Existing permitted composting facilities that classify as Class 5 Composting Facilities in 391-3-4-.16 (5)(e) 1. must comply with the operating standards of Class 3, Class 4, and Class 5 facilities, but are exempted from the design standards of Class 3, Class 4, and Class 5 facilities.

(v) Existing permitted composting facilities that classify as Class 6 In-vessel Composting and Anaerobic Digestion Facilities in 391-3-4-.16 (5)(f) 1. must comply with the operating standards of Class 6 facilities, but are exempted from the design standards of Class 6 facilities.

(vi) All existing composting and anaerobic digestion facilities are exempt from the siting criteria of 391-3-4-.16 (6), unless applying for a major modification as in 391-3-4-.16 (7)(a) 1. or 2.

(vii) All existing composting and anaerobic digestion facilities, other than those operating as Permit-by-Rule facilities, must comply with the testing requirements of 391-3-4-.16 (8).

(2) Definitions. For the purposes of this Rule:

(a) "Aerated Static Pile Composting" means a process in which decomposing organic material is placed in piles over an air distribution system to supply oxygen for the purpose of producing compost.

(b) "Agricultural Residuals" means the residuals from customary and generally accepted activities, practices, and procedures that farmers adopt, use, or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production and harvesting of agricultural crops, which include agronomic, horticultural, and silvicultural crops, and residuals resulting from aquacultural activities. It also includes residuals from harvesting and production of row crops and manures. The term does not include dead animals, wastewater or special wastes, such as waste oils or other lubricants, unused fertilizers, pesticides, or pesticide containers.

(c) "Anaerobic Digester" means an enclosed vessel that processes organic material under anaerobic conditions to produce biogas and digestate.

- (d) "Anaerobic Digestion" means the controlled decomposition of organic material under anaerobic conditions in an anaerobic digester to produce biogas and digestate.
- (e) "Backyard Composting" means composting of yard trimmings and food residuals, managed so as not to attract vectors, at residential, commercial, or industrial property by the owner or tenant for use on site. All feedstocks must be generated and composted on site.
- (f) "Biogas" means gas generated by anaerobic digestion.
- (g) "Compost" means a stabilized organic product produced by a controlled aerobic decomposition process that can be used as a soil additive, fertilizer, growth media or other beneficial use.
- (h) "Composting Facility" means buildings, grounds and equipment dedicated to the manufacture of compost.
- (i) "Contact Water" means a liquid that has passed through or emerged from raw feedstocks and materials that are being processed, cured, or finished; liquid that has come into contact with equipment that is dedicated to the composting or anaerobic digestion process; and which contains extracted, dissolved or suspended materials. Contact water also includes condensate from gases resulting from the composting and the anaerobic digestion processes.
- (j) "Curing" means, for the purposes of composting and anaerobic digestion, a continuation of the composting process after the high heat stage during which stability and maturity continue to increase. For the purposes of these regulations, compost enters the curing stage after completing the process to further reduce pathogens.
- (k) "Digestate" means the residual solids or liquids remaining after organic material has been processed in an anaerobic digester.
- (l) "Feedstock" means any organic material used in the production of mulch or compost or processed in an anaerobic digester. Feedstocks shall not include additives or amendments that are not part of the composting process.
- (m) "Food Processing Residuals" means organic material generated as a by-product of the food-processing sector that is non-hazardous and contains no domestic wastewater. For the purposes of these regulations, the term applies to use as a feedstock in the composting or anaerobic digestion process and does not include dissolved air flotation (DAF) skimmings or fats, oil, and greases.
- (n) "Food Residuals" means pre- and post-consumer food used as a feedstock in a composting or anaerobic digestion facility.
- (o) "Industrial By-product" means organic materials generated by manufacturing or industrial processes that are non-hazardous, contain no domestic wastewater, and pass the paint filter test.
- (p) "In-vessel Composting" means the aerobic decomposition of organic material in an enclosed container for the purpose of producing compost.
- (q) "Maturity" means a measure of the degree of completion of the composting process.
- (r) "Mulching" means the grinding, shredding or chipping of woody materials consisting of stumps, trees, limbs, branches, bark, leaves and other clean wood that has not undergone controlled aerobic decomposition to produce a stabilized organic product.
- (s) "Source-separated Organics" means organic material including, but not limited to, food residuals, food processing residuals, and compostable paper that has been separated from non-compostable material.

(t) "Stability" means the inverse measure of the potential for a material to rapidly decompose that is measured by indicators of microbial activity, such as carbon dioxide production, oxygen uptake, or self-heating.

(3) Exemptions.

(a) The following mulching and composting operations are exempt from a Solid Waste Handling Permit:

1. Backyard composting.
2. A facility composting or mulching only Category A feedstock.
3. A facility processing less than 40 tons per year of food residuals generated on site and composted in leak-proof containers that prohibit vector attraction and prevent nuisance odor generation.
4. Composting of food residuals and yard trimmings generated on site at a K-12 institution for educational purposes.
5. Composting of biosolids at a treatment works regulated by a National Pollutant Discharge Elimination System (NPDES) permit, Land Application System (LAS) permit, or other permit from EPD, and in which case that permit has been modified in accordance with the Georgia Rules for Water Quality Control 391-3-6-.17 (3)(c) 1. to incorporate any necessary requirements for regulating the composting operation.
6. Composting of dead animals, provided such composting is in accordance with the requirements of the Georgia Dead Animal Disposal Act (O.C.G.A. § 4-5) and Georgia Department of Agriculture Rules (Chapter 40-13-5).
7. Anaerobic digestion facilities that are permitted in accordance with with the Georgia Rules for Water Quality Control. These include facilities located at a wastewater treatment plant and on-farm anaerobic digesters or lagoons.
8. Manures managed in accordance with the Georgia Rules for Water Quality Control.

(4) Feedstock Categories.

(a) The categories described below are not intended to be all-inclusive. Case-by-case determinations by the Division may be necessary concerning selection of the appropriate category for a particular feedstock, including industrial by-products not elsewhere classified. Accordingly, the Division may require that analytical and/or process information be supplied by the owner or operator to assist in making such determinations. At a minimum, the Division will require applicants to provide an analysis of metals and proof of compostability of the potential feedstock, including C:N ratio and soluble salts.

1. Feedstock Category A: Yard trimmings, land-clearing debris, agricultural residuals generated and processed on site, untreated and unpainted wood, or any combination thereof.
2. Feedstock Category B: Agricultural residuals generated off site, herbivorous animal manure generated at a zoo, and/or source-separated organics.
3. Feedstock Category C: Sewage sludge and biosolids not managed as part of a treatment works under an NPDES or LAS permit.
4. Feedstock Category D: Dissolved air flotation (DAF) skimmings or sludge generated from food processing and dewatered septage.

(b) Prohibited feedstocks include:

1. Asbestos-containing wastes.
2. Biomedical wastes.
3. Painted and treated wood.
4. Any other prohibited wastes included in 391-3-4-.04 (6).

(5) Design and Operating Standards for Composting Facilities by Class.

(a) Class 1 Composting and Mulching Facilities

1. Facilities composting, grinding, chipping, and/or mulching only Category A feedstock do not require a Solid Waste Handling Permit. A permitted solid waste handling facility shall submit a minor modification prior to adding a Class 1 composting operation on site.

(b) Class 2 Composting Facilities

1. Facilities composting Category A and B feedstocks that meet both of the following criteria may operate under a Permit-by-Rule for Composting Facilities:

- (i) Facilities accepting no more than 25% by weight of Category B feedstock generated off site at facilities not owned by the property owner; and
- (ii) Facilities composting less than 500 tons of Category B feedstock per month.

2. The design standards for Class 2 facilities include:

- (i) The composting area shall be constructed to maintain its structural integrity under operating conditions and be capable of supporting vehicular traffic.
- (ii) The composting facility shall be adequate in size and capacity to manage the projected volume of compost and residue generated. The areas for storing feedstocks prior to processing shall be clearly defined and the maximum capacity specified.
- (iii) For windrow operations, the maximum composting process windrow size and minimum composting process windrow spacing shall match the capability and requirements of the equipment used at the facility.

3. The operating standards for Class 2 facilities include:

- (i) The composting facility shall have a sign at its entrance that lists the name of the facility, hours of operation, feedstocks accepted, and emergency contact information.
- (ii) The composting facility shall have storm water control measures.
- (iii) The composting facility shall prevent flow of contact water from the active composting area into surface water and curing or finished compost areas.
- (iv) Suitable measures to control vectors shall be applied.
- (v) Suitable measures to control odors shall be applied.
- (vi) Suitable measures to prevent, control, and extinguish fires shall be applied.

(vii) By the end of each operating day, all incoming Category B feedstock must be processed into the active composting area, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors.

(viii) No material shall be stored in excess of the designated capacity.

(ix) Storage of finished compost on site is limited to 12 months, unless approved by the Division on a case-by-case basis.

(x) Non-compostable material and solid waste generated on site shall be stored in a waste container and then either recycled or disposed of at a permitted solid waste facility.

(xi) Facilities accepting Category B feedstocks from off site shall track incoming feedstocks and finished compost. Records documenting compliance of the composting facility with these Rules shall be kept for a minimum of three years in a form suitable for submission to or inspection by the Division. Records shall include the weight or volume (in tons or cubic yards) of the feedstocks accepted, total compost produced, and any amount sold or used. Records shall be retained at the composting facility unless an off- site storage location is approved by the Division.

(xii) Notice of final closure shall be provided to the Director within 60 days from final receipt of feedstock. Any site not receiving feedstock in excess of 180 days, unless properly closed or otherwise approved by the Division, shall be deemed closed and in violation of these Rules. Notice of closure shall include documentation that all feedstocks and active, curing, and final compost materials have been removed from the facility and that the site has been stabilized in accordance with the Manual for Erosion and Sediment Control in Georgia.

(c) Class 3 Composting Facilities

1. Any composting facility that is neither exempt under 391-3-4-.16 (3), nor meets the conditions for Class 2 Composting Facilities in 391-3-4-.16 (5)(b), shall obtain a permit in accordance with following requirements:

2. Class 3 composting facilities may compost Category A and B feedstocks.

3. The design standards for Class 3 facilities include:

(i) The composting facility shall be designed by a professional engineer licensed to practice in Georgia.

(ii) An all-weather compost pad shall be designed, constructed, and maintained to (1) prevent ponding and impede downward migration of potential contaminants from contact water; (2) reliably transmit any free liquid present during the storage, treatment, and processing of materials laterally to a containment structure to prevent liquids from entering surface water or groundwater; (3) support vehicular traffic; and (4) prevent conditions that could contribute to or cause contamination.

(iii) Surfaces on which composting takes place shall be graded with a slope between 2% and 6% to prevent ponding of water.

(iv) The site shall be graded to prevent the flow of water from the active composting area into curing or finished compost areas.

(v) Prior to receiving feedstocks, the Division shall be provided with written certification by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division, within 15 days of receipt of the written certification, the facility owner or operator may commence composting operations.

(vi) Before any feedstocks are accepted at the facility, the owner or operator shall fully satisfy all applicable financial responsibility requirements, as provided by Chapter 391-3-4-.13. The financial assurance mechanism shall be updated at least annually for inflation and for any modifications required and approved by the Division.

(vii) An as-built survey of the facility, prepared by a Georgia-registered professional surveyor, shall be submitted with the engineering certification.

(viii) Contact water collection and removal systems shall be designed for incorporating the liquid back into the compost piles or for removal and treatment in a manner approved by the Division. Contact water may be used in the composting operation for moisture addition only in active compost piles that have not completed the process to further reduce pathogens.

(ix) The maximum composting process windrow size and minimum composting process windrow spacing shall match the capability and requirements of the equipment used at the facility.

(x) The composting facility shall submit a site-specific odor minimization plan that includes, at a minimum, the following:

(I) A complaint response protocol.

(II) A description of operating procedures for minimizing odor.

(III) A description of the processes and technologies used to control odors.

(IV) A description of procedures to monitor odor, including sampling frequencies and method(s) used to measure odors.

(xi) The composting facility shall submit a contingency plan detailing corrective or remedial actions to be taken in the event of equipment breakdown; odors; unacceptable waste delivered to the facility; spills; and other undesirable conditions such as fire, dust, noise, vectors, unusual traffic conditions, and litter. The plan shall also include the proposed emergency provisions for equipment breakdown or power failure.

4. The operating standards for Class 3 include:

(i) Operation and management shall be under the supervision and control of an individual properly trained in the operation of such facilities at all times. Facility operations managers must be able to document training in the basics of composting facility operations.

(ii) The facility shall install and maintain storm water management controls.

(iii) Suitable measures to control vectors shall be applied.

(iv) Suitable measures to prevent, control, and extinguish fires shall be applied.

(v) By the end of each operating day, all incoming Category B feedstock shall be processed into the active composting area, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors. Prior to being incorporated into the active composting area, feedstocks with free liquid shall be mixed with drier feedstocks, bulking material, or compost so that the liquid is promptly absorbed and not allowed to flow from the mixing area.

(vi) Compost processing time and temperatures shall be sufficient to kill weed seeds, reduce pathogens and vector attraction, and produce compost that meets the stability necessary for the intended use. Pathogen and vector attraction reduction compliance shall be achieved as follows:

(I) Windrow composting: The compost material shall be maintained at a minimum average temperature of 55°C or higher for 15 days or longer. During the period when the compost is maintained at 55°C or higher, there shall be a minimum of five turnings of the windrow. The 15 or more days at or above 55°C do not have to be continuous.

(II) Aerated static pile or in-vessel composting: The compost material shall be maintained at a minimum average temperature of 55°C or higher for three consecutive days, followed by at least 14 days at over 40°C with an average temperature of over 45°C.

(vii) Facilities using aerated static piles shall insulate piles to ensure that all parts of the decomposing material reach and maintain temperatures at or above 55°C for a minimum of three days.

(viii) The all-weather compost pad must be maintained to its specified slope and resist deformation that would cause ponding or increase infiltration of contact water.

(ix) Storage of finished compost on site is limited to 12 months, unless approved by the Division on a case-by-case basis.

(x) Non-compostable material and solid waste generated on site shall be stored in a waste container and then either recycled or disposed of at a permitted solid waste facility.

(xi) Records shall be maintained to track incoming feedstocks and finished compost. By September 1 of each year, operators shall submit a report to the Division that includes the weight or volume (in tons or cubic yards) of the feedstocks accepted, total compost produced, and any amount sold or used in the previous fiscal year (July 1 - June 30).

(xii) Records documenting compliance of the composting facility with these Rules shall be kept for a minimum of three years in a form suitable for submission to or inspection by the Division. Records shall be retained at the composting facility unless an off-site storage location is approved by the Division.

(xiii) A facility odor minimization plan shall be maintained and updated as stipulated in the following:

(I) The odor impact minimization plan shall be revised and submitted to the Division for any major modification as described in 391-3-4-.16 (7).

(II) The odor impact minimization plan shall be reviewed annually by the operator to determine if any revisions are necessary.

(III) The odor impact minimization plan and results of the odor monitoring shall be used by the Division to determine whether the facility is following the procedures approved in its permit and its design and operational plan.

(xiv) The composting facility shall have a sign at its entrance that lists the name of the facility, permit number, days and hours of operation, feedstocks accepted, and emergency contact information.

(xv) The composting facility shall be closed in accordance with Rule 391-3-4-.11.

(d) Class 4 Composting Facilities

1. Any composting facility that is neither exempt under 391-3-4-.16 (2), nor meets the conditions for Permit-by-Rule for Composting Facilities in 391-3-4-.16 (4)(b), shall obtain a permit in accordance with following requirements:

2. Class 4 composting facilities may compost Category A, B, and C feedstocks.

3. Class 4 composting facilities shall comply with the design and operating standards for Class 3 composting facilities and the additional design and operating standards listed below:

(i) The design standards for Class 4 include:

(I) The compost pad for the receiving, mixing, and active composting areas shall prohibit ponding and limit infiltration of contact water by being uniformly graded at a minimum slope of 2%. The compost pad shall contain a layer to limit infiltration. This layer shall either be one foot in thickness with a hydraulic conductivity not exceeding 1×10^{-5} cm/sec or an approved alternative which meets or exceeds this specification for the purpose of limiting infiltration. The layer to limit infiltration shall be constructed on a prepared and compacted subsurface, and overlain by a wearing surface that will resist deformation, prevent ponding, and prevent the infiltration of contact water. A minimum separation of five feet is required between the bottom of the infiltration layer and the seasonal high water table. Industrial waste proposed for the use in the construction of the compost pad shall be approved by the Division.

(II) Contact water shall be contained in a tank with secondary containment or in an impoundment with a liner system consisting of a one-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. The liner shall be overlain by a protective marker layer of sand or stone no less than one foot in thickness. An alternate liner system with the equivalent ability to limit infiltration may be approved by the Division.

(ii) The operating standards for Class 4 include:

(I) The composting pad shall be maintained and repaired as needed. Cracks or other defects identified in the wearing surface shall be promptly repaired under the supervision of the facility manager. Any repairs or reconstruction of the layer limiting infiltration shall be completed under the supervision of a professional engineer, who shall prepare a report and certification of the repairs. A copy of the report(s) shall be maintained in the facility's operating records. Compost materials shall not be placed in areas with damage to the infiltration layer, and berms or other diversions shall be installed to prevent run-on of contact water into these areas.

(II) Facilities that compost biosolids or sewage sludge shall comply with all applicable federal regulations regarding sludge management at 40 CFR 501; 40 CFR 503; and 40 CFR 503, Subpart B.

(III) Groundwater monitoring systems shall be designed and installed in accordance with 391-3-4-.14. Additionally:

(A) Monitoring parameters shall be established based on the hydrogeologic data related to the site, the type of feedstocks accepted at the facility, and waste characterization analyses performed on incoming feedstocks.

(B) Monitoring shall be conducted semi-annually, at a minimum.

(IV) By the end of each operating day, all incoming Category B and C feedstocks shall be processed into the active composting pile, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors.

(e) Class 5 Composting Facilities

1. Class 5 composting facilities may compost Category A, B, C, and D feedstocks.

2. Class 5 composting facilities shall comply with the design and operating standards for Class 3 and 4 composting facilities and the additional design and operating standards listed below:

(i) The design standards for Class 5 include: Reserved.

(ii) The operating standards for Class 5 include:

(I) The feedstock receiving and mixing areas shall be in an enclosed structure. The receiving area of the composting operation shall be constructed of asphalt, concrete, or a composite liner system. Receiving entrances shall be closed and under negative pressure during receipt and processing of Category D feedstocks.

(II) By the end of each operating day, all incoming Category B, C, and D feedstocks shall be processed into the active composting pile, transferred to leak-proof containment, or mixed with bulking material to minimize nuisance odors and scavenging by vectors.

(f) Class 6 In-vessel Composting and Anaerobic Digestion Facilities

1. Class 6 facilities employ in-vessel composting or anaerobic digestion. These facilities may process Category A, B, C, and D feedstocks.

2. The design standards for Class 6 facilities include:

(i) A description of the basic site design.

(ii) A description of the type of technology to be used, including a copy of the drawings and specifications of the composting or digestion equipment and a process flow diagram that includes the types of the major material handling equipment and material flow.

(iii) A description of the unit's requirements for power, water, and wastewater removal.

(iv) A description of the type and quantities of feedstock to be processed.

(v) A description of the storage capacity for feedstocks, products and digestate, if applicable.

(vi) Anticipated annual operational capacity in cubic yards or gallons per day.

(vii) A description of the proposed methods used to control spills, run-off, litter, odors, dust, rodents, and insects, including the storage of feedstocks, compost and digestate, leak-prevention and spill release measures, and the methods to monitor effectiveness for control measures.

(viii) The facility shall have a site-specific odor minimization plan that includes, at a minimum, the following:

(I) A complaint response protocol.

(II) A description of operating procedures for minimizing odor.

(III) A description of the processes and technologies used to control odors.

(ix) A contingency plan detailing corrective or remedial actions to be taken in the event of equipment breakdown; odors; unacceptable waste delivered to the facility; spills; and other undesirable conditions such as fire, dust, noise, vectors, unusual traffic conditions, and litter. The plan shall also include the proposed emergency provisions for equipment breakdown or power failure.

3. The operating standards for Class 6 facilities include:

(i) Operation and management shall be under the supervision and control of an individual properly trained in the operation of such facilities at all times. Facility operations managers must be able to document training in the basics of composting and/or anaerobic digestion operations through a course approved by the Division.

(ii) The facility shall have a sign at its entrance that lists the name of the facility, permit number, days and hours of operation, feedstocks accepted, and emergency contact information.

(iii) The facility shall install and maintain storm water management controls.

(iv) Suitable measures to control vectors shall be applied.

(v) Suitable measures to prevent, control, and extinguish fires shall be applied.

(vi) The operator shall take measures to prevent spillage and promptly respond to any leaks or spills that occur.

(vii) By the end of each operating day, all incoming Category B, C, and D feedstocks shall be processed, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes odors and scavenging by vectors. For facilities with an anaerobic digester, the feedstocks can be stored in leak-proof containers with lids that prevent vector or odor problems for a period of time to allow for proper organic loading of the digester. This time period shall not exceed four days.

(viii) Digestate not contained in an in-vessel digester, sealed container, or sealed structure, shall, within 24 hours, be removed from the site and either disposed or processed at a permitted solid waste facility or incorporated into a permitted, on-site

compost operation. Digestate may be stored in a sealed container or sealed structure for up to nine months. By-products from the separation of digestate shall be stored separately and in sealed containers.

(ix) Non-compostable waste shall be stored in a waste container and then recycled or disposed of at a permitted solid waste facility.

(x) For in-vessel composting operations, the operator shall ensure that the composting process reduces pathogens. The compost material shall be maintained at a minimum average temperature of 55°C or higher for three consecutive days, followed by at least 14 days at over 40°C with an average temperature of over 45°C.

(xi) Facilities employing anaerobic digestion must minimize the uncontrolled release of biogas.

(xii) Notice of final closure shall be provided to the Director within 60 days from final receipt of feedstock. Any site not receiving feedstock in excess of 180 days, unless properly closed or otherwise approved by the Division, shall be deemed closed and in violation of these Rules. Notice of closure shall include documentation that all feedstocks, compost materials and digestate have been removed from the facility and that the site has been stabilized in accordance with the Manual for Erosion and Sediment Control in Georgia.

(6) Criteria for Siting Composting Facilities.

(a) Class 2 composting facilities shall comply with the following criteria:

1. The facility shall not be located in the 100-year floodplain.
2. A 50-foot undisturbed buffer shall be maintained between the composting operation and the property line.
3. A 200-foot buffer shall be maintained between the composting operation and any adjacent residences and/or drinking water supply wells.
4. A 50-foot buffer shall be maintained between the composting operation and all streams.
5. A description of surrounding land uses up to a ½-mile radius shall be provided.
6. Airport safety restrictions, as required by Rule 391-3-4-.05(1)(c) for MSWLF units, shall be met.

(b) Classes 3-6 composting facilities and anaerobic digestion facilities shall comply with the following criteria:

1. The facility shall submit a letter from the local government authority stating that the proposed facility complies with local zoning and land use ordinances.
2. The facility shall submit written verification by the applicant that the facility is consistent with the local or regional solid waste management plan, as required in Rule 391-3-4-.02(4)(c) 5.
3. The facility shall not be located in the 100-year floodplain.
4. The facility shall submit a map of the topographic setting depicting features, including all upstream and downstream drainage areas affecting or affected by the proposed site, floodplain, gullies, karst conditions, wetlands, unstable soils, and percent slope.

5. A 100-foot undisturbed buffer shall be maintained between the composting operation and the property line.
6. A 500-foot buffer shall be maintained between the composting operation and any adjacent residences and/or any drinking water supply wells.
7. A 50-foot buffer shall be maintained between the composting operation and all streams.
8. A description of surrounding land uses up to a ½-mile radius shall be provided.
9. Airport safety restrictions as required by Rule 391-3-4-.05(1)(c) for MSWLF units, shall be met.
10. The facility shall submit a site assessment report, prepared by a professional geologist or geotechnical engineer registered in Georgia, addressing the above-listed criteria.

(c) In addition to meeting the Class 3 siting requirements, Class 4 and 5 composting facilities shall comply with the following siting criteria:

1. Submission of a hydrological assessment, as specified in 391-3-4-.05 (1)(k) may be required.
2. Submission of an odor assessment that includes, at a minimum:
 - (i) The proximity of existing odor receptors;
 - (ii) An evaluation of the site and operation characteristics to determine the potential for impacts on the neighboring community from the off-site migration of odors from the proposed facility; and
 - (iii) A description of the design considerations or practices to be implemented to control the potential impacts of off-site odors generated from the facility.

(7) Permit Modifications for Class 3-6 Facilities.

(a) All modifications of existing facilities shall be classified as follows:

1. Major modifications include those changes which substantially alter the design of the facility, management practices, the types or categories of feedstocks processed, or the technologies employed, and due to the nature of the changes, would likely impact the facility's ability to adequately protect human health and the environment. Major modifications, therefore, require closer review and public input than minor modifications.
2. Major modifications shall include, but are not limited to, the following:
 - (i) A modification which adds a new solid waste handling process. This shall include, but not be limited to, the addition of a materials recovery facility, a composting operation co-located at an anaerobic digestion facility, baling operation, shredding operation, or liquid solidification operation.
 - (ii) A modification which involves a change to a site suitability requirement, which could have originally impacted the siting of the facility.
3. Minor modifications include changes that do not substantially alter the permit conditions, that do not reduce the capacity of the facility to protect human health or the environment, or that do not prevent the facility from responding in a timely manner. These changes include common variations in the type and quantities of feedstocks managed, technological advancements, or

changes necessary to comply with new Rules, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(i) Minor modifications shall include, but are not limited to, the following:

(I) Changing the name of the facility.

(II) A modification which involves the relocation of access roads.

(III) A modification which adds scales.

(IV) A modification which involves the addition or removal of on-site structures.

(V) A modification which involves the addition of or a change to a groundwater or surface water monitoring system.

(VI) A modification which involves the addition or removal of a Permit-by-Rule facility.

(VII) A modification which involves the removal of any solid waste handling facility.

(VIII) A modification which involves the addition of or a change to a closure or post-closure plan.

(IX) A modification which involves the addition of or a change to a method of contact water handling and/or treatment.

(X) A modification which involves the addition of a corrective action plan.

(XI) A modification which involves a change in ownership, or in the case of a corporation of over five percent of the stock in a corporation holding a permit, but does not involve the transfer of the permit.

4. All major modifications shall be subject to the following requirements:

(i) Submission of a completed application for a permit modification.

(ii) Submission of supporting documents accompanying the application for a permit modification that describe the exact change(s) to be made to the permit conditions and supporting documents referenced by the permit that explain why the change is needed.

(iii) Submission of a revised design for the requested change(s).

(iv) Submission of written verification by the applicant, as required by Rule 391-3-4-.05(1)(a), that the facility, as proposed to be modified, conforms to all local zoning/land use ordinances, if any.

(v) Submission of written verification by the applicant that the facility, as proposed to be modified, is consistent with local or regional solid waste management plans. The verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plan.

(vi) Submission of written verification by the applicant that a public hearing was held by the governing authority of the county or municipality in which the facility requesting the modification is located, not less than two weeks prior to granting approval of the

modification. Submission of a typed transcript of the hearing. Submission of written verification that notice of such hearing was posted at the site of such facility and advertised in a newspaper of general circulation serving the county or counties in which the facility is located at least 30 days prior to such hearing.

(8) Testing.

(a) Class 3-6 composting facilities and anaerobic digestion facilities that compost on site shall meet the following test standards and requirements:

1. Samples and measurements taken for the purpose of product testing shall be representative of the composting activity and shall be conducted in accordance with methods and procedures approved by the Director.

2. The minimum number of samples that shall be collected and analyzed is shown in the table below. Samples to be analyzed shall be composted prior to the analysis.

Compost Quantity ¹ (tons/yr)	Frequency
1- 6,200	Once per quarter
6,201 - 17,500	Once every two months
Greater than 17,500	Once per month

¹Either the amount of finished compost applied to the land, prepared for sale or given away on an "as is" (wet weight) basis.

If test results show the finished product is stable and in compliance with both metals and pathogens standards for a two-year period, the facility may request a reduction in the frequency of testing, provided there are no changes in feedstocks composted at the facility. Class 3 facilities may test for pathogens and trace metals at half the frequency, but overall testing for all other characteristics must be as defined in the table above.

3. All compost shall be tested for stability in accordance with methods and procedures approved by the Director.

(i) The stability results shall be documented in the facility's operating records.

4. All compost shall be tested for the presence of pathogens in accordance with methods and procedures approved by the Director.

(i) Either the density of fecal coliform in the finished compost shall be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the finished compost shall be less than three MPN per four grams of total solids (dry weight basis) before the compost may be sold, given away, or applied to the land.

5. All compost shall be analyzed for metals in accordance with methods and procedures approved by the Director.

(i) The following pollutant concentrations shall not be exceeded:

Pollutant Monthly average concentration (milligrams per kilogram)¹

Arsenic 41

Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2,800

¹ On a dry weight basis.

(b) For Class 6 facilities that operate an anaerobic digester, the facility shall, at a minimum, monitor or test the following:

1. Chemical Oxygen Demand shall be tested daily if the feedstocks change on a daily basis or weekly if the feedstocks are consistent or if the digester is at steady state, with steady state being defined as the treatment level or the gas production is constant for at least three Hydraulic Retention Times (HRT).
2. Alkalinity shall be measured daily if the feedstocks change on a daily basis or weekly if the feedstocks are consistent or if the digester is at steady state, with steady state being defined as the treatment level or the gas production is constant for at least three Hydraulic Retention Times (HRT).
3. Gas production shall be monitored.

(c) Digestate that has not been analyzed for metal concentration, pathogen concentration, and physical contaminants, or is known to contain any metal in amounts that exceed the maximum metal concentrations in 391-3-4-.16 (8)(a)(5)(i), shall be designated for disposal or additional processing.

(d) The Division may approve alternative methods of compliance to meet the requirements of this section including, but not limited to, sampling frequencies.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.16

Authority: O.C.G.A. Secs. 12-8-20 et seq., 12-8-23.

History. Original Rule entitled "Asbestos Containing Waste" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Repealed: New Rule entitled "Composting" adopted. F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: Title changed to "Composting, Mulching and Anaerobic Digestion Facilities." F. Jun. 25, 2014; eff. Jul. 15, 2014.

Original Rule entitled "Asbestos Containing Waste" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Repealed: New Rule entitled "Composting" adopted. F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: Title changed to "Composting, Mulching and Anaerobic Digestion Facilities." F. Jun. 25, 2014; eff. Jul. 15, 2014.

Rule 391-3-4-.17 Measuring and Reporting Requirements

(1) Reporting the quantities of solid waste managed:

(a) Persons holding a municipal solid waste disposal permit, including permits-by-rule, shall report to the Director the total amount, in tons, of solid waste disposed of quarterly. Reports shall be filed by the 30th day after the beginning of each calendar quarter, covering the reporting period for the preceding quarter.

(b) The reports shall contain, at a minimum, which cities and counties are served by the disposal facility and the total number of tons of solid waste received from each jurisdiction served during the reporting period. The required data shall be submitted on such forms as may be prescribed by the Director.

(2) Measurement Methods:

(a) Where disposal facilities do not have scales at the disposal facility, or through contractual or other arrangements, do not weigh all municipal solid waste destined for the facility, the owner and/or operator shall require each type of commercial vehicle utilizing the facility to be weighed with such frequency that an accurate conversion from cubic yards to tons can be made for each commercial vehicle type not weighed.

(b) Where such systems of estimating the weight are utilized, the owner or operator must prepare and submit to the Director for approval, a description of such systems for all existing sites. New disposal facilities must include this information as part of the permit application.

(3) Reporting remaining capacity of the site.

(a) On July 1 of each year, persons holding a municipal solid waste landfill permit shall report to the Director the remaining capacity of the facility.

(b) The remaining capacity shall be determined in cubic yards and the determinations shall be certified by the professional engineer, registered in the State of Georgia.

(c) The rate of filling shall be determined and provided along with an estimated completion date for the facility.

(4) Waste Disposal Surcharge.

(a) After July 1, 1992, owners or operators of any solid waste disposal facility, other than an inert waste landfill as defined in these Rules or a private industry solid waste disposal facility, shall assess and collect, on behalf of the division from each disposer of waste, a surcharge per ton on solid waste disposed as required by O.C.G.A. § 12-8-39. Surcharges assessed and collected on behalf of the division shall be paid to the division on July 1, 1993, for the period July 1, 1992, through December 31, 1992. All subsequent payments shall be due on the first day of July of each year for the preceding calendar year.

(b) The surcharge required by subparagraph (4)(a) of this Rule, shall be calculated based on the reports required by paragraph (1) of this Rule and in accordance with actual weights received or other approved methods provided for in paragraph (2) of this Rule.

(c) Notice of State Surcharge: The Division shall prepare at least two press releases, for statewide distribution, during the period July 1, 1992, to June 30, 1993, advertising the \$0.50 per ton surcharge. Such press releases shall at minimum explain:

1. the statutory requirement for such a surcharge;
2. the intended purpose of the surcharge;

3. how the surcharge is to be collected; and
4. how and whom to contact for further information.

(d) The Division will also provide to the Association County Commissioners of Georgia, the Georgia Municipal Association, the National Solid Waste Management Association, the Regional Development Centers, the Solid Waste Association of North America, and other interested organizations or persons, articles and materials as those organizations may choose to use in making available to their members information on the surcharge.

(5) For operating CCR units, the total volume of the CCR waste disposed in a CCR unit and the CCR removed, recovered, or diverted for beneficial use shall be reported to the Division on July 1 of each year after the issuance of a solid waste handling permit. The required data shall be submitted on such forms as may be prescribed by the Director.

(6) The owner or operator of a municipal solid waste landfill shall notify the local governing authorities of any city and county in which such landfill is located of any release from the site of such landfill of a contaminant which is likely to pose a danger to human health. In addition, such owner or operator shall cause notice of such release to be published in the legal organ of the county in which such landfill is located. Compliance with the requirements of this Rule shall occur within 14 days of confirmation of such release by the Division.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.17

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

History. Original Rule entitled "Liquid Waste Restrictions at Sanitary Landfills" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Repealed: New Rule entitled "Measuring and Reporting Requirements" adopted. F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Dec. 17, 1992; eff. Jan. 6, 1993.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: F. Nov. 2, 2016; eff. Nov. 22, 2016.

Rule 391-3-4-.18 Operator Certification

(1) Applicability: this Rule applies to all operators of municipal solid waste landfills, municipal solid waste thermal treatment technology facilities, and employees of the Department of Natural Resources who inspect these facilities.

(a) After July 1, 1992, no person shall perform the duties of a municipal solid waste disposal facility operator without being duly certified under this Rule.

(b) After July 1, 1992, no municipal solid waste disposal facility shall be operated in Georgia unless the operator is certified under this Rule.

(c) After July 1, 1992, all inspectors of municipal solid waste disposal facilities shall be certified to inspect the same.

(2) Certificates:

(a) Any certificate granted under this Section shall be renewable every five years.

(b) The Division shall approve all examinations and courses to be used in determining the knowledge, ability, and judgment of applicants for certification under this Rule. Such courses and examinations shall be given at least twice annually.

(c) A Certified Landfill Operator or Inspector must meet the following minimum qualifications:

1. Graduate of high school or an accredited GED program, and have worked at a landfill in Georgia for at least six months. Prior to July 1, 1994, persons who lack the required high school or GED preparation and possess an equivalent level of math and literacy skills, may substitute five years experience as a landfill operator or manager in Georgia for the required high school or GED program; or

2. To conduct landfill inspections, be employed by the Georgia Department of Natural Resources and required by their job descriptions to conduct landfill inspections; and

3. Must have successfully completed the Landfill Certification Training Course and examination endorsed by the Division.

(d) Upon application, a certificate may be issued without examination, in a comparable classification, to any person who holds a certificate in any state, territory, or possession of the United States or any country, provided that the requirements for certification of operators under which the person's certificate was issued do not conflict with this Rule and are of a standard not lower than that specified by this Rule; and provided further that reciprocal privileges are granted to certified operators of this State.

(e) The Director may investigate the actions of any operator and may revoke or suspend the certificate of an operator, following a hearing conducted in accordance with Chapter 13 of Title 50, the "Georgia Administrative Procedure Act", when it is found that the operator has practiced fraud or deception; that reasonable care, judgment, or the application of his knowledge or ability was not used in the performance of his duties; or that the operator is incompetent or unable to perform his duties properly.

(f) The Director shall include, as a condition in a permit issued, a requirement that the municipal solid waste disposal facility operator be duly certified in accordance with this Rule.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.18

Authority: O.C.G.A. Secs. 12-8-20et seq., 12-8-23.

History. Original Rule entitled "Sanitary Landfill Operator Certification" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Operator Certification." F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993, eff. Jun. 27, 1993.

Original Rule entitled "Sanitary Landfill Operator Certification" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: Rule retitled "Operator Certification." F. Sept. 4, 1991; eff. Sept. 24, 1991.

Amended: F. Jun. 7, 1993, eff. Jun. 27, 1993.

Rule 391-3-4-.19 Scrap and Used Tire Management

(1) Applicability.

(a) Scrap tire handling shall be regulated from the point of generation through the point of final disposition. The provisions of this Rule, except where exemptions apply, shall apply to all persons presently engaged in, or proposing to be engaged in, the retail sale of new replacement tires, handling of scrap tires, and/or the collection, inventory and marketing of used tires.

(b) All persons subject to regulation under this Rule shall, in addition to the requirements of 391-3-4-.19, handle scrap tires in accordance with the provisions of O.C.G.A. 12-8-20, et seq., and the Rules for Solid Waste Management, Chapter 391-3-4, applicable to solid waste.

(2) Definitions. For the purposes of this Rule:

(a) "Beneficial reuse" means the use of scrap tires for purposes other than its original intended use and that have been approved by the Division prior to reuse.

(b) "Enclosure" means structure with four sides and roof or an area surrounded by a wall or fence with the purpose of controlling or limiting access.

(c) "End user" means the last person who uses the scrap tires, chips, crumb rubber, or similar materials to make a product with economic value, or, in the case of energy recovery, the person who uses the heat content or other form of energy from the incineration, combustion or pyrolysis of waste tires, chips or similar materials.

(d) "Financial Assurance" means a mechanism designed to demonstrate that funds will be available to ensure compliance with statutory, regulatory and permit requirements of tire carriers and processors. The financial mechanism must be either a surety bond or an irrevocable letter of credit.

(e) "Manufacturer" means a person who produces new tires from raw materials for the original intended use on, but not limited to, automobiles, trucks, motorcycles, trailers, recreational vehicles, construction equipment, earth-moving equipment and aircraft.

(f) "Mixed Tires" means a group of tires that may consist of "used tires," "retreadable casings," and "scrap tires."

(g) "Organized Site Cleanup Activity" means scrap tire abatement activities conducted by a government entity, non-profit, or other organization.

(h) "Point of Final Disposition" means a location approved by the Division to receive scrap tires including, but not limited to, scrap tire processors, scrap tire sorters and end users.

(i) "Residuals" means by-products resulting from the processing of scrap tires including, but not limited to, fibers, metals, inner tubes and rims.

(j) "Retreadable Casing" means a scrap tire suitable for retreading. This includes casings that have value as a potential retreaded tire. This does not include casings with tread separation, unrepaired cuts, corroded belts, sidewall damage, run-flat or skidded.

(k) "Retail Dealer" means a person actively engaged in the business of selling new replacement tires. Retail dealers may also be, but are not limited to, manufacturers, wholesalers, and others who sell new replacement tires to the ultimate consumer.

- (l) "Scrap Tire" means a tire that is no longer suitable for its original intended purpose because of wear, damage, or defect.
- (m) "Scrap Tire Generator" means any person who generates scrap tires including, but not limited to, tire retailers; retail dealers; retreaders; scrap tire processors; scrap tire sorters; automobile dealers; private company vehicle maintenance shops; used tire dealers; garages, and service stations; and city, county, and state governments.
- (n) "Scrap Tire Processing" means any method, system, or other treatment designed to change the physical form, size, or chemical content of scrap tires for beneficial use.
- (o) "Scrap Tire Processor" means any person approved through a permit issued by the Division to receive and process scrap tires, but shall not include a registered secondary metals recycler operating a scrap metal shredder for the purpose of shredding metallic scrap, including scrap automobiles containing five or fewer scrap tires per automobile into specification grades of scrap metal.
- (p) "Scrap Tire Sorter" means any person, other than a registered scrap tire generator or a scrap tire processor, who handles mixed tires by separating used tires and retreadable casings from scrap tires and is approved through a permit by the Division.
- (q) "Tire" means a continuous solid or pneumatic rubber covering designed for encircling the wheel of a motor vehicle and which is neither attached to the motor vehicle nor a part of the motor vehicle as original equipment.
- (r) "Tire Carrier" means any person engaged in collecting or transporting tires, other than new tires. For the purpose of this Rule, tire carrier does not include a transporter of scrap or crushed vehicles.
- (s) "Tire Manifest" means a form or document used to identify the quantity, composition, origin, routing and destination of scrap tires during transportation from the point of generation to a point of final disposition.
- (t) "Tire Retailer" means any person, other than a used motor vehicle parts dealer licensed in accordance with Chapter 47 of Title 43, engaged in the business of selling new replacement tires or used tires.
- (u) "Tire Retreader" means any person actively engaged in the business of retreading scrap tires by scarifying the surface to remove the old surface tread and attaching a new tread to make a usable tire.
- (v) "Ultimate Consumer" means the last person who receives and uses a new replacement tire.
- (w) "Used Tire" means a tire which has a minimum of 2/32inch of road tread and which is still suitable for its original purpose but is no longer new. A tire retailer shall inventory and market used tires in substantially the same fashion as a new tire and be able to provide satisfactory evidence to the division that a market for the tire exists and that the tire is in fact being marketed as a used tire. A used tire shall not be considered solid waste.
- (x) "Used Tire Dealer" means a tire retailer selling used tires as defined in this Rule.

(3) Retail Dealers.

- (a) Beginning July 1, 1992, a tire management fee is imposed upon the retail sale of all new replacement tires in this state of \$1.00 per tire sold. The fee shall be collected by retail dealers at the time the retail dealer sells a new replacement tire to the ultimate consumer; provided, however, that a Georgia tire distributor who sells tires to retail dealers must collect such fees from any retail dealer who does not have a valid scrap tire generator identification number issued by the Division.

1. New replacement tires include, but are not limited to, automobile, truck, heavy equipment, motor bike, boat and other trailers, aircraft, and recreational vehicles.
2. Local and state governments are not exempt from the fee.
3. The fee shall not be imposed on the sale of:

- (i) Tires with a rim size less than 12 inches;
- (ii) Tires from any device moved exclusively by human power; or
- (iii) Tires used exclusively for agricultural purposes, except farm truck tires.

(b) Retail dealers shall remit fees and a quarterly tire fee report documenting the number of new replacement tires sold to the Division. The retail dealers shall use forms provided by the Division. The fee and report shall be remitted by the 30th day of April, July, October, and January of each year, covering the period for the preceding quarter.

(c) In collecting, reporting, and paying the fees due under this section, each distributor or retailer shall be allowed the following deductions, but only if the amount due was not delinquent at the time of payment:

1. A deduction of three percent of the first \$3,000.00 of the total amount of all fees reported due on such report; and
2. A deduction of one-half of one percent of the portion exceeding \$3,000.00 of the total amount of all fees reported on such report.

(4) Scrap Tire Generators.

(a) Any person who generates scrap tires in this state shall have a scrap tire generator identification number (ID number #) issued by the Division. The ID number shall be used on tire manifests. A separate ID number shall be required for each business location.

(b) The following persons shall not be required to have an ID number:

1. Scrap tire generators who generate scrap tires at out-of-state locations and ship their scrap tires to a point of final disposition in Georgia; and
2. A licensed used motor vehicle parts dealer or registered secondary metals recycler, who does not generate scrap tires for disposal or recycling.
3. A municipal solid waste collector holding a valid solid waste collection permit under authority of this part whose primary business is the collection of municipal solid waste;
4. A private individual transporting no more than 10 of the individual's own or a private individual transporting more than 10 tires if such individual can provide proof of purchase with receipt for such tires;
5. Any person transporting tires collected as part of an organized site cleanup activity;

(c) Scrap tire generators shall initiate a tire manifest to track scrap tires during transportation from the point of generation to an approved point of final disposition. The tire manifest shall include the following information:

1. Name, address, county, telephone number and scrap tire generator identification number;

2. An estimate of the number (accurate to within 10% of actual number) or weight of scrap tires to be transported;
3. Signature of the generator certifying the estimate and the date the scrap tires were picked up;
4. Name, address, telephone number and permit number of the tire carrier;
5. Signature of the permitted tire carrier, the date of pickup from the generator and the date of delivery to the point of final disposition;
6. Name, address, telephone number and permit number of the point of final disposition;
7. Signature of authorized representative at the point of final disposition certifying the weight (in tons or number of tires) and the date received from the tire carrier.

(d) If a generator chooses to use tons of tires rather than actual numbers of tires on the tire manifest for passenger and truck tires, the following conversion factor must be used:

1. Passenger Tires: 2000 lb. (one ton) = 89 tires (22.5 lb/tire)
2. Truck Tires: 2000 lb. (one ton) = 17 tires (120 lb/tire)

(e) Scrap tire generators shall ensure that any person collecting and transporting their scrap tires hold a valid tire carrier permit issued by the Division and that their scrap tires were delivered to the point of final disposition designated by the generator on the scrap tire manifest.

(f) Scrap tire generators shall retain a copy of the tire manifest signed and dated by the carrier at the time the scrap tires were collected or transported. This tire manifest copy should be kept until the generator receives the original tire manifest signed by the generator, carrier and point of final disposition. The original tire manifest shall be kept on-site for a period of three years.

(g) A scrap tire generator shall notify the Division in writing of any carrier who fails to return a properly completed tire manifest to the generator within 30 days from scrap tire pickup. Such notification shall be filed within 15 days following any failure of the carrier to deliver the tire manifest with original signature to the generator.

(h) Scrap tire generators may designate whether a tire, because of wear, damage, or defect, is a "used tire", or "retreadable casing" as defined in these Rules. However, if a generator fails to designate which tires are "used", or "retreadable casings" then all tires transported shall be considered scrap tires and must be indicated on the tire manifest.

(5) Tire Carriers.

(a) Unless otherwise exempted, any person collecting or transporting scrap or used tires shall have a tire carrier permit issued by the Division. A permit shall not be issued unless the financial assurance, as provided for in these Rules, has been submitted and approved by the Division.

(b) A separate permit and financial assurance instrument shall be required for each tire carrier business location.

(c) A tire carrier shall transport scrap tires only to a point of final disposition as defined in these Rules.

(d) Storage of scrap tires by tire carriers is prohibited.

(e) The permitted tire carrier shall maintain financial assurance in a format provided by the Division. The required financial assurance is as follows:

1. \$10,000.00 for carriers transporting up to 5,000 scrap tires per month.
2. \$20,000.00 for carriers transporting more than 5,000 scrap tires per month.

(f) The permitted tire carrier shall submit a quarterly report to the Division on forms provided by the Division. Reports shall be postmarked or hand-delivered by the 30th day of April, July, October and January of each year and cover the reporting period for the preceding calendar quarter. The tire carrier shall retain copies of the quarterly reports, tire manifests, invoices and weight tickets for three years at their place of business or other location approved by the Division. The tire carrier shall make these records available for review upon request by the Division.

(g) The permitted tire carrier shall display a decal issued by the Division on both the driver's and passenger's doors on each vehicle used to collect or transport tires. A decal shall not be required for a tire carrier that collects tires exclusively from outside this state and transports them directly to a scrap tire processor or end user within this state.

1. By August 1st of each year, tire carriers shall purchase decal(s) for each vehicle used to collect or transport tires.
2. The tire carrier shall pay the Division a nominal fee for each decal issued.
3. Decals are valid for a one-year period and shall expire on July 31st of each year.

(h) It shall be the responsibility of the permitted tire carrier to return the tire manifest, with the three required original signatures, to the scrap tire generator no later than 30 days from the date on which the carrier collected the scrap tires from the generator.

(i) The following persons shall not be required to have a tire carrier permit:

1. A tire retailer transporting its own used tires, if such dealer can provide proof of purchase with receipt for all used tires being transported and a document verifying the origin, route and destination of such used tires;
2. A municipal solid waste collector holding a valid solid waste collection permit under authority of this part whose primary business is the collection of municipal solid waste;
3. A private individual transporting no more than 10 of the individual's own tires or a private individual transporting more than 10 tires if such individual can provide proof of purchase with receipt for such tires;
4. A company transporting the company's own tires to a scrap tire processor or end user or for proper disposal;
5. Any person transporting tires collected as part of an organized site cleanup activity;
6. The United States, the State of Georgia, any county, municipality, or public authority.
7. Other persons, as approved by the Division, on a one time or temporary basis, as needed to further the intent of O.C.G.A. 12-8-20, et seq., that scrap tires be reused or recycled rather than disposed.

(6) Scrap Tire Storage.

- (a) No person may store more than 25 scrap tires anywhere in this state.

(b) If scrap tires are secured in a locked enclosure or are otherwise adequately secured in a manner suitable to prevent unauthorized access, then paragraph (6)(a) of this Rule shall not apply to the following:

1. A solid waste disposal site permitted by the Division, if the permit authorizes the storage of scrap tires prior to their disposal;
2. A tire retailer or a publicly owned vehicle maintenance facility with not more than 1,500 scrap tires in storage;
3. A tire retreader with not more than 3,000 scrap tires in storage, so long as the scrap tires are of the type the retreader is actively retreading;
4. A licensed used motor vehicle parts dealer registered with the Secretary of State's office, a registered secondary metals recycler or a privately owned vehicle maintenance facility that operates solely for the purpose of servicing a commercial vehicle fleet with not more than 500 scrap tires in storage; and
5. A scrap tire processor permitted by the Division so long as the number of scrap tires in storage does not exceed the quantity approved by the Division.

The Division may grant a waiver for the enclosure requirement if the person requesting the waiver can definitively show a significant and unique economic hardship which would impair the person's ability to continue operating his or her business.

6. A farm with 100 or fewer scrap tires in storage or in use for agriculture purposes. In addition, the Division may grant waivers to allow the storage or use of more than 100 scrap tires for agricultural purposes, if such storage or use does not pose a threat to human health or the environment.

(c) Any person storing scrap tires is subject to the following requirements:

1. Unless otherwise specified in an approved plan by the Division, all scrap tires shall be stored in a manner (e.g. under roof, secured tarp, or the like to prevent water accumulation) that controls the breeding and harborage of mosquitoes, rodents and other vectors;
2. Activities involving open flames and other flammable materials (oil, gas, fuel) shall not be allowed within 25 feet of a scrap tire storage area, with the exception of maintenance activities involving torches and welding equipment, as long as a fireproof barrier is used;
3. A 50-foot wide fire lane shall be placed around the perimeter of each scrap tire pile.
4. All persons engaged in the collection, storage or processing of scrap tires, retreadable or used tires shall control the presence of vectors or other nuisance pests associated with storage of the tires. Such pests may include, but are not limited to, mosquitoes, rats, mice, snakes and other animals living in or adjacent to the tire storage. Permitted or approved facilities shall maintain records for three years that include, but are not limited to:
 - (i) Type of control method used;
 - (ii) If chemical control - the name of the chemical(s);
 - (iii) Dates and amounts of chemical(s) used; and
 - (iv) Chemical storage location.

(7) Criteria for Scrap Tire Processors, Sorters and Disposal Facilities.

(a) Processing operations shall include, but not limited to, shredding, chopping, chipping, splitting, pyrolysis, microwave, and cryogenic operations. Provided financial assurance requirements of these rules have been met, permitted scrap tire processors in existence on the effective date of this Rule may continue to operate under their existing permit. Existing facilities requesting modifications after the effective date of this Rule must fully comply with this Rule. Scrap tire processing facilities shall meet the following requirements:

1. All scrap tire processors located in this state shall submit an application and obtain a permit issued by the Director prior to operation. No person may process scrap tires without a permit issued from the Director.
2. A permitted scrap tire processor shall maintain financial assurance in a format provided by the Division in the amount of \$20,000 for each business location.
3. All scrap tire processors shall have and follow an operations plan approved by the Division. The facility owner(s) or authorized representatives shall submit a written request to modify an approved operations plan. Any proposed modification to the facility and/or operations shall not be implemented until approved by the Division.
4. The operations plan shall include, zoning approval, proof of fire inspection, operational narrative, site plan and drawing of the operation, and shall be designed by a professional engineer licensed to practice in Georgia.
5. Processors must show that they have the necessary operable equipment in place to process scrap tires prior to receiving scrap tires for processing.
6. Storage Requirements.

In addition to the scrap tire storage requirements in section (6)(c) of these Rules, the following requirements apply:

- (i) Storage limits are based on the processing equipment capability, proof of market, recycling rate and available storage space; and
- (ii) Storage of scrap tires shall not exceed a 30 day operating supply. Prior approval for increased storage limits must be approved by the Division if 30 day operating supply cannot be met;
- (iii) Requirements for Storage in Buildings.

Scrap tires stored indoors will be managed in accordance with "The Standard for Storage of Rubber Tires," NFPA 231D, 1998 edition, published by the National Fire Protection Association or recommendation of local fire authority.
- (iv) Requirements for Storage in Trailers.

Any processor with tires, product or residuals in enclosed trailers shall be subject to the following requirements:

- (I) Trailer storage areas must be clearly depicted on a site plan; and
- (II) Storage area shall be no greater than 10,000 square feet per storage area.

(III) A minimum of two feet must be maintained between trailers (side-to-side and end-to-end). No more than two rows of trailers per storage area may be stored at any facility. Such storage must be end-to-end and the trailer must be stored in a manner that allows direct removal of the trailer if needed. Empty trailers stored in the area designated for scrap tire storage are subject to the same separation requirements.

(IV) A 50-foot wide fire lane shall be placed around the perimeter of each scrap tire storage area. The fire lane shall be kept free of debris, vehicles, trailers, weeds, grass and other potentially combustible material.

(v) Requirements for Tires, Processed Tires, Product, and Residuals Stored on the Ground

(I) A tire, processed tire, product, or residual pile shall have no greater than the following maximum dimensions:

I. Area: 10,000 square feet; and

II. Height: 15 feet

(II) A 50-foot wide fire lane shall be placed around the perimeter of each pile with the exception of noncombustible materials (rims, wires, etc). The fire lane shall be kept free of debris, vehicles, trailers, weeds, grass and other potentially combustible material. Existing processors may comply with the fire lane requirements documented on an approved plan until the plan is modified.

(III) Storage of whole tires, products, and residuals near buildings is prohibited unless:

I. A non-combustible/non-flammable barrier (firewall) is constructed in accordance with applicable state or local firewall requirements and a 25-foot fire lane, unless otherwise set by the local fire authority, is maintained between the firewall and the building; and

II. The whole tires, processed tires, products, and residuals shall not exceed the height of the firewall.

7. General Operation Standards.

Processors shall meet the following operational requirements:

(i) Access to the processing facility and fire lane(s) for emergency vehicles shall be unobstructed at all times, with the exception of routine loading or unloading operations, provided the vehicles are attended by their drivers during that time.

(ii) In the event of fire, the owner or operator shall immediately take all necessary steps to control and extinguish the fire and control any resulting runoff (i.e., water, oil or other fluid residue).

(iii) The run-off resulting from fires or fire suppression actions shall be prevented by berms or other detention structures approved by the Division from entering drains and waters of the state. Material(s) used in berm construction must be non-combustible, non-flammable and prevent run-off.

- (iv) The facility owner or operator shall provide documentation that the local fire authority conducted a fire safety survey. The facility owner or operator shall arrange for an additional fire safety survey as part of any modification request that would increase the amount of scrap tires in storage.
- (v) Operations involving the use of open flames shall not be conducted within 25 feet of a scrap tire stockpile, processed tire stockpile or processing equipment. An exception is allowed for maintenance activity using torches or welding equipment, as long as fireproof curtains or other fireproof barrier shields the ignition source from storage or equipment areas.
- (vi) Access to the facility shall be controlled using fences, gates or other means of security.
- (vii) An attendant shall be present when the scrap tire processing facility is open for business if the facility receives tires from persons other than the operator of the facility.
- (viii) Any residuals from scrap tire processing shall be managed so as to be contained on-site and shall be controlled and disposed of in a permitted solid waste handling facility or be properly recycled.
- (ix) A scrap tire processing facility shall not accept any scrap tires for processing if it has reached its approved or permitted staging limit. At least 75 percent of both the scrap and processed tires that are accumulated by the scrap tire processing facility each calendar quarter, and 75 percent by weight or volume of all scrap tires previously received and not recycled, reused or properly disposed during the preceding calendar quarter shall be processed and removed from the facility for disposal or recycling from the facility during the quarter or disposed of in a solid waste handling facility approved to accept scrap tires.
- (x) Communication equipment shall be maintained at the scrap tire processing facility to ensure that the facility attendant or operator can contact local emergency response authorities in the event of a fire. The facility will notify the Division within 24 hours in the event of a fire requiring a response by the local fire jurisdiction.
- (xi) The emergency/contingency portion of the operations plan shall include, but not be limited to:
 - (I) A list of names and numbers of persons to be contacted in the event of a fire, flood or other emergency;
 - (II) A list of the emergency response equipment at the facility, its location and how it should be used in the event of a fire or other emergency; and
 - (III) A description of the procedures that should be followed in the event of a fire, including procedures to contain and dispose of the oily material generated by the combustion of large numbers of tires.
- (xii) Facility shall have storm water control measures.
- (xiii) Facility shall have erosion and sediment control measures.

8. Recordkeeping and Reporting.

- (i) The owner or operator of a scrap tire processing facility shall retain required records for three years and make such records available for inspection by the Division. Required records include, but are not limited to:

- (I) Copies of the tire manifests for all tires received;
- (II) If more than ten scrap tires were delivered by a person who is not a permitted tire carrier or generator, the number or weight of tires delivered, the date and the person's name, address, telephone number and signature;
- (III) Properly dated, numbered and signed weight tickets, from certified scales at the facility or from a certified public or private scale, for scrap tires or processed tire materials received at or leaving the facility;
- (IV) For all scrap tires shipped for reuse or retreading, the quantity and type (passenger car, truck tires, off the road, or others) shipped and the name and location of the person receiving the tires; and
- (V) For all processed tires and residuals, invoices and shipping tickets identifying the date, weight, name, address and phone number of the point of final disposition.

(ii) Owners and operators of scrap tire processing facilities shall submit a quarterly report to the Division. The quarterly report shall be postmarked by the 30th day of the month following the end of the preceding calendar quarter. The report shall include, but not limited to, the following:

- (I) The facility name, address and permit number;
- (II) The calendar quarter and year covered by the report;
- (III) The total weight of scrap or processed tires received at the facility during the period covered by the report;
- (IV) The total weight of scrap tires, processed tires, residuals and used tires shipped from the facility during the period covered by the report; and
- (V) The amount of scrap, processed tires or residuals remaining on site.

9. Closure of Scrap Tire Processing Facilities.

(i) The owner or operator shall provide procedures in the operations plan for closing the facility, including, but not limited to:

- (I) Notification to the Division of intent to close 30 days prior to the scheduled date for closing;
- (II) Closure activities and schedule for completion;
- (III) Control of access to the site; and
- (IV) Notification to the Division when all closure activities are completed.

(b) Sorters.

1. Sorters in existence on the effective date of this Rule may continue to operate under their existing approval. New or existing facilities requesting modifications after the effective date of this Rule must be permitted by the Division.

(c) Disposal Operations: All solid waste disposal facilities (landfills and thermal treatment technology facilities) having a valid Solid Waste Handling Permit issued by the Director are approved to receive scrap tires except as provided in O.C.G.A. 12-8-40-.1 (b).

(8) Recycling and Beneficial Reuse of Scrap Tires.

(a) For the purposes of this Rule, the following criteria will be used to determine if scrap tires are being recycled:

1. The scrap tires or processed scrap tires must have a known use, reuse or recycling potential; must be feasibly used, reused or recycled; and must have been diverted or removed from the solid waste stream for sale, use, reuse, or recycling, whether or not requiring subsequent separation and processing.
2. Scrap tires or processed scrap tires are not accumulated speculatively if the person accumulating them can show there is a known use, reuse, or recycling potential for them; that they can be feasibly sold, used, reused or recycled; and during the preceeding 90 days, the amount of scrap or processed scrap tires recycled, sold, used or reused equals at least 75 percent by weight or volume of the tires received during the 90-day period.
3. Proof of recycling, sale, use, or reuse shall be provided in the form of bills of sale, or other records showing adequate proof of movement of the scrap tires in question to a recognized recycling facility or for proper use or reuse from the accumulation point. Proof must be provided that there is a known market or disposition for the scrap tires or processed scrap tires and must show that they have the necessary equipment to do so, prior to receiving scrap tires for processing.
4. A scrap tire is "sold" if the generator of the scrap tire or the person who processed the scrap tire received consideration or compensation for the material because of its inherent value.
5. A scrap tire is "used, reused, or recycled" if it is either:
 - (i) Employed as an ingredient (including use as an intermediate) in a process to make a product (e.g., utilizing crumb rubber to make rubber-asphalt); or
 - (ii) Employed in a particular function or application as an effective substitute for a commercial product (e.g., using shredded tires as a substitute for fuel oil, natural gas, coal, or wood in a boiler or industrial furnace), as long as such substitution does not pose a threat to human health or the environment, and so long as the facility is not a solid waste thermal treatment technology facility or utilizing shredded tires as a soil amendment, aggregate, etc., or
 - (iii) Reused for its original intended purpose as a used tire, or reused for other purposes approved by the Division, such as playground equipment, erosion control, etc.

(b) Persons proposing to use more than 25 scrap tires in a beneficial reuse project shall submit a proposal and be approved by the Division prior to commencing beneficial reuse project.

(9) Used Tire Dealer.

(a) Any person who acts as a used tire dealer in this state shall have a used tire dealer identification (ID) number issued by the Division, which shall be used on tire manifests. A separate ID number shall be required for each business location, except mobile locations.

(b) Used tire dealers shall obtain a tire carrier permit for transportation of used tires other than their own.

(c) Used tire dealers transporting tires other than their own shall initiate a tire manifest to track used tires from the point of generation to another location. The following information shall be provided on the tire manifest:

1. Name, address, county, telephone number and used tire dealer ID number;
2. The number of used tires to be transported;
3. Signature of the generator and the date the used tires were picked up;
4. Name, address, telephone number and permit number of the tire carrier;
5. Signature of the tire carrier, the date of pickup from the generator and the date of delivery to final location;
6. Name, address, telephone number and permit number of business location receiving the used tires;
7. Signature of authorized representative at the business received from the tire carrier.

(d) Used tire dealers shall implement suitable measures to control vectors.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.19

Authority: O.C.G.A. § 12-8-20 et seq.

History. Original Rule entitled "Enforcement" was F. Jun. 9, 1989; eff. Jun. 29, 1989.

Amended: F. Sept. 4, 1991; eff. Sept. 24, 1991.

Repealed: New Rule entitled "Scrap Tire Management" adopted. F. Dec. 17, 1992; eff. Jan. 6, 1993.

Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

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Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

Amended: New title "Scrap and Used Tire Management." F. Oct. 8, 2015; eff. Oct. 28, 2015.

Rule 391-3-4-.20 Enforcement

The administration and enforcement of these Rules shall be in accordance with the Georgia Comprehensive Solid Waste Management Act, O.C.G.A. 12-8-20, et seq., the Executive Reorganization Act of 1972, O.C.G.A. 12-2-1, et seq., and the Georgia Administrative Procedure Act, O.C.G.A. 50-13-1, et seq.

Cite as Ga. Comp. R. & Regs. R. 391-3-4-.20

Authority: O.C.G.A. Sec. 12-8-20 et seq., as amended.

History. Rule entitled "Enforcement" renumbered from 391-3-4-.19. F. Dec. 17, 1992; eff. Jan. 6, 1993.

Amended: F. Jun. 7, 1993; Jun. 27, 1993.

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